FINAL REPORT

PHASE IA ARCHAEOLOGICAL ASSESSMENT STORMWATER AND FLOOD MITIGATION PROJECT AT CITY DOCK, CITY OF ANNAPOLIS, MARYLAND

Prepared for:
City of Annapolis
Department of Public Works
145 Gorman St., 2nd Floor
Annapolis, MD 21401

Prepared by:
Kathleen Furgerson, RPA
Heather Crowl, RPA
Scott Seibel, RPA

Principal Investigator:
Scott Seibel, RPA

AECOM
12420 Milestone Center Drive, Suite 150
Germantown, MD 20876

March 2018

AECOM

This Page Intentionally Blank

ABSTRACT

The City of Annapolis (City) contracted with AECOM to develop final engineering design plans and provide permitting support for the mitigation of flooding at City Dock through construction of two new pump stations, realignment of existing storm drain systems, and grading along the existing bulkhead. The proposed undertaking will require ground-disturbing activities that could potentially impact subsurface archaeological resources. AECOM conducted a Phase Ia archaeological assessment for the project's proposed Limits of Disturbance (LOD) to document historic land modifications to the proposed LOD, assess the potential of the proposed LOD to contain significant archaeological resources, and identify areas for additional archaeological investigations. This Phase Ia study is intended to assist the City of Annapolis with decision making regarding planning and design of the mitigation measures and their impact on potential archaeological resources.

The proposed LOD is approximately 1.8 acres (0.7 hectares) and consists of two areas to the north and south sides of City Dock. The proposed LOD does not include contractor staging areas, but such areas are assumed to involve no ground disturbing activities. The linear alignments are the proposed locations of storm drainage realignments; two proposed pump houses comprise the larger areas on the southeast ends of the LOD. The general project area, including the proposed LOD and immediate vicinity, is located in the Coastal Plain province within Maryland Archaeological Research Unit 7, the Gunpowder-Middle-Back-Patapsco-Magothy-Severn-South-Rhode-West Drainages.

Despite the extensive development in the project area, there generally remains a high potential for significant historic archaeological resources related to development and use of the historic waterfront. The historic mapping, especially the Hopkins 1878 map and the Sanborn maps, show the potential for the remains of numerous buildings and structures, as well as associated artifacts and features, is high within the majority of the proposed LOD. This is supported by archaeological investigations that have occurred within or in the immediate vicinity of the proposed LOD, most specifically the 1984 investigation at site 18AP39 by Archaeology in Annapolis and the 2016 archaeological monitoring conducted by Kerns. Conversely, there is low potential for prehistoric archaeological resources due to extensive historic-era infilling for the creation of City Dock.

AECOM recommends archaeological monitoring during construction for the linear portions of the proposed LOD where realignment of existing storm drains is slated to occur. In addition, archaeological monitoring is recommended for the slight grading modifications associated with the bulkhead. AECOM recommends a Phase I archaeological survey of the pump stations to determine the nature and extent of potentially significant intact archaeological resources.

This Page Intentionally Blank

TABLE OF CONTENTS

LIST OF APPENDICES

LIST OF TABLES

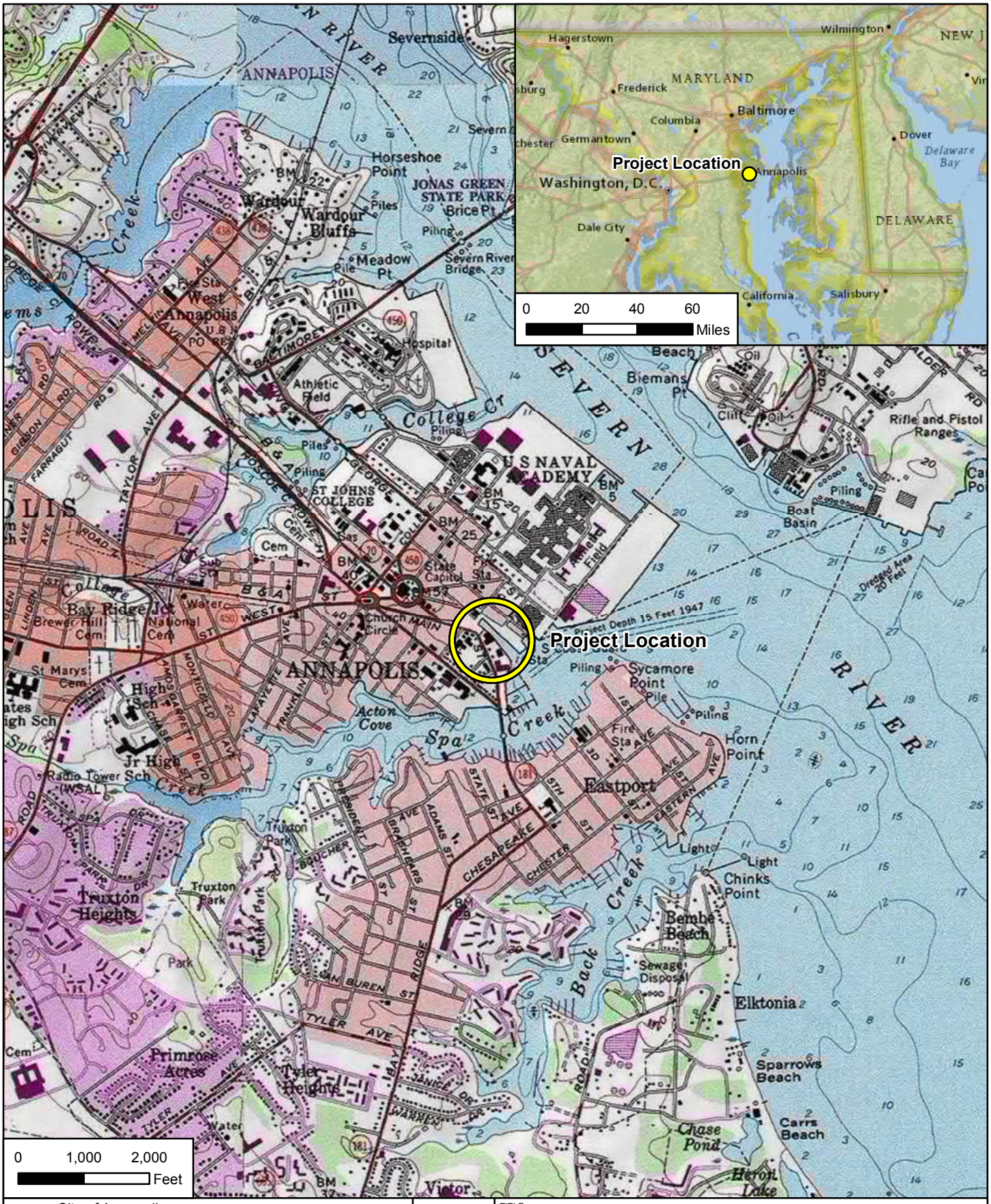
LIST OF FIGURES

1.0 INTRODUCTION

The City of Annapolis (City) contracted with AECOM to develop final engineering design plans and provide permitting support for the mitigation of flooding at City Dock through construction of two new pump stations, realignment of existing storm drain systems, and grading along the existing bulkhead. The proposed undertaking will require ground-disturbing activities that could potentially impact significant archaeological resources. AECOM conducted a Phase Ia archaeological assessment for the project's proposed Limits of Disturbance (LOD) to document historic land modifications to the proposed LOD, assess the potential of the proposed LOD to contain significant archaeological resources, and identify areas for additional archaeological investigations, if warranted (Figure 1). This Phase Ia study is intended to assist the City of Annapolis with decision making regarding planning and design of the mitigation measures and their impact on significant archaeological resources.

The proposed LOD is approximately 1.8 acres (0.7 hectares) and consists of two areas to the north and south sides of City Dock (Figure 2). The proposed LOD does not include contractor staging areas, but such areas are assumed to involve no ground disturbing activities. The linear alignments are the proposed locations of storm drainage realignments; two proposed pump stations comprise the larger areas near the northeast and southeast ends of the LOD (Figure 2). The general project area, including the proposed LOD and its immediate vicinity, is located in the Coastal Plain province within Maryland Archaeological Research Unit 7, the Gunpowder-Middle-Back-Patapsco-Magothy-Severn-South-Rhode-West Drainages (Figure 3).

The Phase Ia was prepared in December 2017 and January 2018. Scott Seibel served as the Principal Investigator, Heather Crowl and Kathleen Furgerson conducted the archaeological assessment, and Kathleen Furgerson served as the GIS Specialist. Following this Introduction, the report contains seven sections of text: Project Location and Description; Cultural Context; Previous Investigations; Methods; Documentary Study Results; Conclusions and Recommendations; and References Cited. Appendix A contains the Qualifications of the Investigators and follows the body of the report.

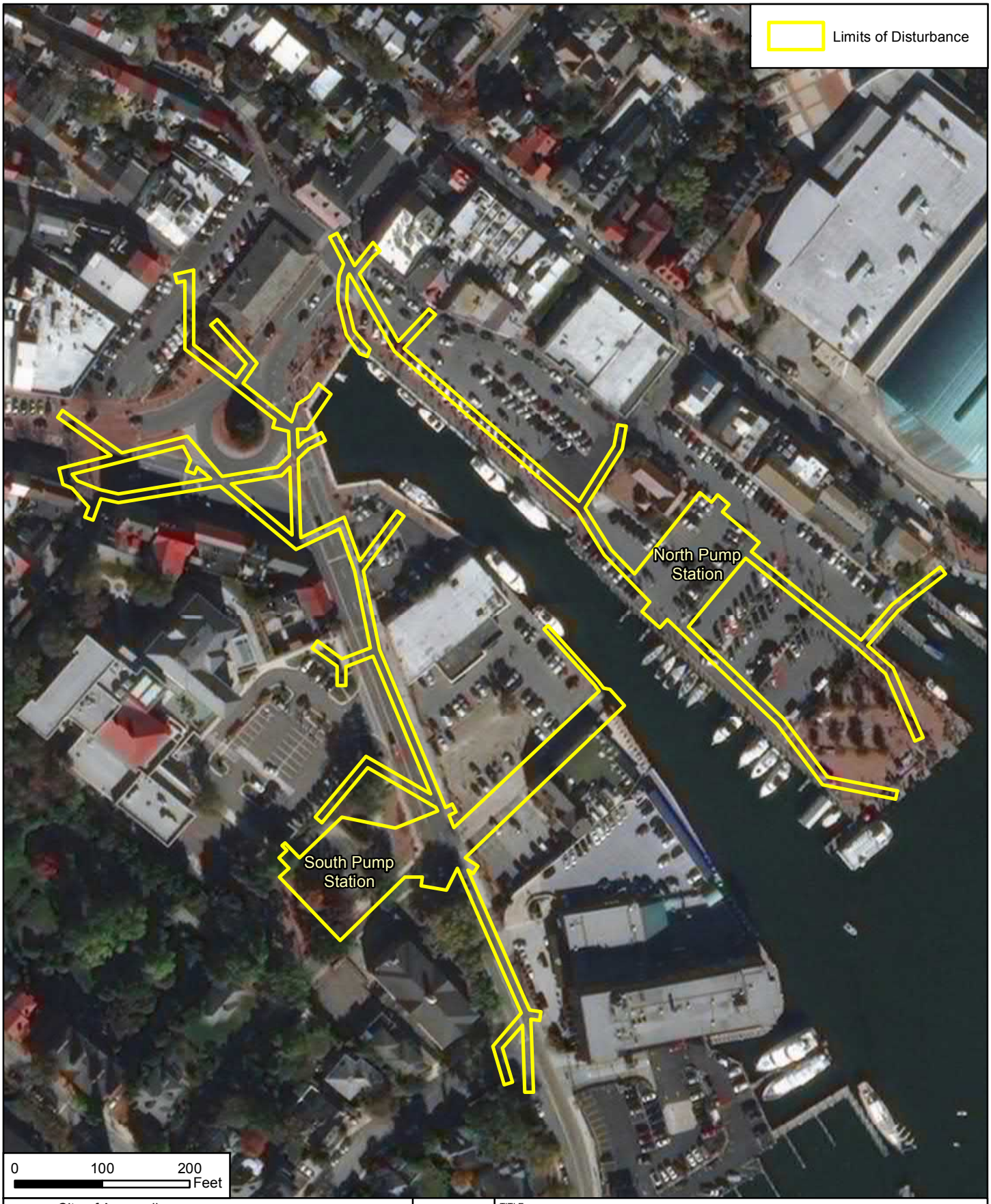


CLIENT	City of Annapolis
PROJ	City Dock Phase IA Archaeological Assessment
SCALE	1:24,000
SOURCE	Esri 2018
	Q:\Projects\WR\City of Annapolis\Storm Drain and Flood Mitigation Design Services\400-Technical\432_Cultural\GIS\Fig 1_project location.mxd

TITLE: Project Location

AECOM
12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO	60533093
FIGURE	1



CLIENT	City of Annapolis
PROJ	City Dock Phase IA Archaeological Assessment
SCALE	1:1,800
SOURCE	Esri 2018
	Q:\Projects\WR\City of Annapolis\Storm Drain and Flood Mitigation Design Services\400-Technical\432_Cultural\GIS\Fig 2_LOD map.mxd

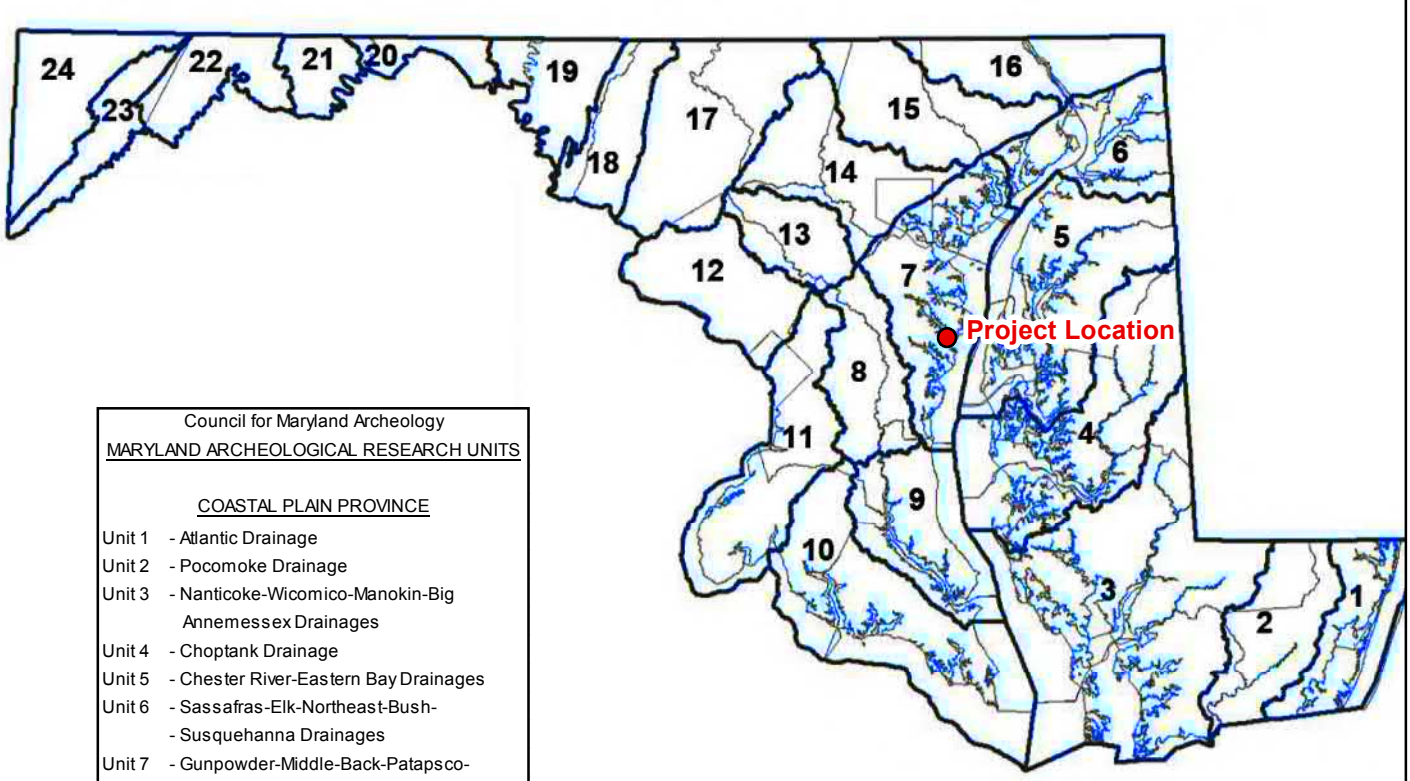
TITLE

Limits of Disturbance

AECOM

12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO	60533093
FIGURE	2



Council for Maryland Archeology
MARYLAND ARCHEOLOGICAL RESEARCH UNITS

COASTAL PLAIN PROVINCE

Unit 1 - Atlantic Drainage
Unit 2 - Pocomoke Drainage
Unit 3 - Nanticoke-Wicomico-Manokin-Big Annemessex Drainages
Unit 4 - Choptank Drainage
Unit 5 - Chester River-Eastern Bay Drainages
Unit 6 - Sassafras-Elk-Northeast-Bush-Susquehanna Drainages
Unit 7 - Gunpowder-Middle-Back-Patapsco-Magothy-Severn-South-Rhode-West Drainages
Unit 8 - Riverine Patuxent Drainage
Unit 9 - Estuarine Patuxent Drainage
Unit 10 - Estuarine Potomac Drainage
Unit 11 - Riverine Potomac Drainage

PIEDMONT PROVINCE

Unit 12 - Potomac Drainage
Unit 13 - Patuxent Drainage
Unit 14 - Patapsco-Back-Middle Drainages
Unit 15 - Gunpowder-Bush Drainages
Unit 16 - Susquehanna-Elk-Northeast Drainages
Unit 17 - Monocacy Drainage

APPALACHIAN PROVINCE

Unit 18 - Catoctin Creek Drainage
Unit 19 - Antietam Creek-Conococheague Creek Drainages
Unit 20 - Licking Creek-Tonoloway Creek-Fifteenmile Creek Drainages
Unit 21 - Town Creek Drainage
Unit 22 - Evitts Creek-Georges Creek Drainages
Unit 23 - Potomac-Savage Drainages
Unit 24 - Youghiogheny-Casselman Drainages

0 25 50 Miles

CLIENT	City of Annapolis
PROJ	ICC-B Phase Ia
SCALE	1:2,100,000
SOURCE	MHT 2017
	Q:\Projects\WR\City of Annapolis\Storm Drain and Flood Mitigation Design Services\400-Technical\432_Cultural\GIS\Fig 3_MARU.mxd

TITLE
Maryland Archaeological Research Unit Map

AECOM
12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO 60548099
FIGURE 3

2.0 PROJECT LOCATION AND DESCRIPTION

2.1 GEOLOGY, TOPOGRAPHY, AND HYDROLOGY

The project area is located within the Atlantic Coastal Plain physiographic province, which consists of low-relief terrain characterized by terraced landscapes rising west from the Atlantic Ocean to a maximum elevation of around 250 feet (ft) (75 meters [m]) above mean sea level near the Piedmont.

The Coastal Plan consists of unconsolidated sediments including sand, sandstone, silt, clay, and gravels that gradually thicken from the eastern Piedmont to the Atlantic Ocean. These sediments overlay eastern Piedmont bedrock along an irregular zone of contact called the Fall Line (Maryland Geological Survey 2018). Coastal Plain deposits date to the Triassic (250 million years ago) through Quaternary Periods (present).

City Dock is situated along Spa Creek, which drains into the Severn River. The Severn River is a 14-mile (mi; 22.4-kilometer [km] long estuary that drains into Chesapeake Bay at Annapolis (Maryland Department of Natural Resources 2018b). Elevations within the project area range between 2 and 10 feet (0.6 and 3 m) above sea level.

2.2 PROJECT AREA SOILS

Soils within the project area are mapped as Urban Land and Collington-Wist-Urban Land (CpB) complex by the United States Department of Agriculture's Natural Resources Conservation Service (USDA NRCS 2018). The CpB complex is limited to the extreme western portions of the project area. Typical profiles for Collington and Wist soils are summarized in Table 1. Urban land consists of disturbed deposits with a high degree of taxonomic variability and may include materials redeposited from local or nonlocal sources. Because urban soil structure and formation cannot be predicted, it is not possible to define the structure of a typical soil column, though it is expected that non-native urban soils will present as mottled, compacted horizons possibly containing historic debris, cobbles, and gravel superposed above natural strata.

Table 1. Typical Soil Profiles

Soil Unit	Soil Horizon	Depth (inches)	Texture
Collington	Ap	0-10	Fine sandy loam
	Bt	10-34	Sandy clay loam
	BC	34-72	Fine sandy loam
Wist	Ap	0-13	Fine sandy loam
	BE	13-17	Fine sandy loam
	Bt	17-41	Sandy clay loam
	BC	41-82	Fine sandy loam

2.3 CURRENT CONDITIONS AND LAND USE

The proposed LOD consists of two areas on the northeast and southwest sides of City Dock harbor within historic Annapolis. Land use in the vicinity is mixed government/municipal, commercial, industrial, recreational, and residential in an urban setting, though streets and

parking lots comprise the majority of the land use within the project area and the proposed LOD, specifically. City Dock harbor is the hub of tourism for the city.

3.0 CULTURAL CONTEXT

The Maryland Historical Trust (MHT) has developed historic contexts that provide a framework for the description and analysis of known or expected cultural resources and the basis for evaluating the significance of those resources. These contexts are organized by geographic region, time/developmental period, and theme.

3.1 PREHISTORIC CONTEXT

The prehistory of the Middle Atlantic region is traditionally divided into the Paleoindian (10,000–8000 B.C.), Archaic (8000–1000 B.C.), and Woodland (1000 B.C.–A.D. 1600) periods. The Archaic and Woodland periods are further subdivided into Early, Middle, and Late periods. These periods are defined by changes in subsistence strategies, settlement patterns, and material culture, such as projectile point styles, and the introduction and development of ceramics and agriculture. A brief summary of the prehistoric era is presented because there is a low potential for intact prehistoric archaeological deposits within the project area.

3.1.1 Paleoindian Period (10,000–8000 B.C.)

While definitive evidence of human occupation in the Middle Atlantic region is generally attributed to the Clovis culture with its signature fluted points, beginning about 10,000 B.C., traces of earlier occupations are present at a number of regional sites. The Cactus Hill site in southern Virginia (McAvoy and McAvoy 1997), the Meadowcroft Rockshelter site in southwestern Pennsylvania (Adovasio et al. 1998), and the Barton site in western Maryland have all yielded carbon-dates pre-dating Clovis occupation, although no clear diagnostic artifacts have been identified in the earliest deposits at these sites. Although there is much to be learned about the pre-Clovis toolkit, micro-blade technology appears to be a defining characteristic.

The Paleoindian period represents the earliest definitive prehistoric occupation in Maryland. Paleoindian sites are defined by the presence of diagnostic lithic tools, including fluted projectile points and end scrapers manufactured from lithic raw materials such as jasper, chert, chalcedony, quartz, and quartzite (Dent 1995). The traditional view of Paleoindian settlement and subsistence in Maryland is that inhabitants were idealized foragers, with small bands moving through the landscape hunting, fishing, and foraging for other materials and food stuffs (Binford 1980). Smaller bands may have come together to form larger groups during certain times of the year at valuable resource sites such as lithic outcrops (Dent 1995).

3.1.2 Archaic Period (8000–1000 B.C.)

The Archaic period is conventionally divided into the Early (8000–6500 B.C.), Middle (6500–3000 B.C.), and Late (3000–1000 B.C.) periods. Archaic sites in the Middle Atlantic area are more numerous, larger, and richer in artifacts than earlier Paleoindian sites. The Archaic period as a whole is defined by a series of adaptations that include increased sedentism and a shift in settlement focus to larger rivers and major tributaries.

The Archaic period represents the gradual shift from a foraging subsistence base toward a more collector-based system characterized by large base camps and smaller resource procurement sites. Resources obtained at smaller sites were brought back to larger base camps, which moved resources to the consumer rather than the consumer to the resource. The Paleoindian foraging system is believed to have continued through the Early and into the Middle Archaic period with the shift towards a collector-based system occurring in the late Middle through Late Archaic

periods (Dent 1995). Custer (1990) interpreted Early Archaic settlement as a cyclical settlement system designed to exploit regionally and seasonally available resources. Technological innovation in the Early Archaic included the development of notched projectile points, which reflects the development of the atlatl, or spear thrower, and detachable shaft lances (Gardner 1980). Increased reliance on seasonally available plant foods from newly emerging environments is reflected in the addition of ground stone tools to the toolkit in the Middle Archaic (Barse and Harbison 2000; Chapman 1975). Increasing territoriality and regional diversity throughout the Archaic period are reflected in the increased variety of artifacts, especially projectile points.

The Late Archaic period in the Middle Atlantic is characterized by the exploitation of riverine and estuarine resources, including upstream anadromous fish runs resulting from rising sea levels. Late Archaic semi-sedentary base camps appear to represent multi-seasonal occupations near stable, predictable riverine/estuarine resources (Barse et al. 2006; Klein and Klatka 1991). These sites were occupied for longer periods of time, and Late Archaic populations began to invest labor in constructing permanent features, such as platform hearths, storage pits, and fish weirs, that were used year after year (Dent 1995). The appearance of the Broad Blade or Broadspear Tradition ca. 2,500 B.C. in the Middle Atlantic marks a departure from previous settlement and technological systems. New projectile point types, ground stone implements, steatite bowls, and shifts in settlement patterns associated with the appearance of this tradition have caused many authors to argue for a separate period, the Transitional period, separating the Late Archaic and Early Woodland. Steatite bowls recovered from Late Archaic sites represent the first archaeologically visible, durable container technology in the Middle Atlantic region.

3.1.3 Woodland Period (1000 B.C.–A.D. 1600)

The Woodland period dates from 1000 B.C. to A.D. 1600, and is conventionally divided into the Early (1000 B.C.–A.D. 500), Middle (A.D. 500–1000), and Late (A.D. 1000–1600) periods based on changes in ceramic types, lithic technologies, subsistence patterns, and social development. The Woodland period is marked by the introduction of ceramics, population growth, and an increasingly sedentary way of life. An increased focus on estuarine resources, especially shellfish, is manifested in numerous shell middens, especially in the lower reaches of the Potomac estuary. Natural floral and faunal resources remained important, but horticulture, based on maize cultivation, eventually formed an important part of the Woodland period subsistence base.

Settlement patterns in the Early Woodland period were similar to those of the Late Archaic, and at numerous sites Early Woodland occupations succeed earlier Late Archaic occupations with little to no evidence of a break in occupation. Sites are typified by large base camps located in riverine settings, especially near the junction of fresh and brackish water streams (Barse and Harbison 2000). The earliest ceramic types from the area are the steatite-tempered Marcey Creek and Selden Island varieties, which are followed by sand or crushed quartz-tempered Accokeek wares. These ceramics are associated with fishtail and corner-notched projectile point/knife types (Wesler et al. 1981).

The introduction of net-impressed ceramics and the development of new vessel sizes and forms characterize the Middle Woodland period. Two distinctive ceramic types characterize the period: sand or crushed quartz-tempered, net-impressed Popes Creek wares; and shell-tempered Mockley wares with net-impressed, fabric-impressed, and/or cordmarked exteriors (Barse and Harbison 2000). Middle Woodland settlement and subsistence patterns are viewed as a transition

between the more mobile collectors of earlier periods and the fully sedentary villages of the Late Woodland period (Sperling 2008).

Major changes that define the Late Woodland period in the Chesapeake region include: the appearance of large villages made possible by the cultivation of maize; a shift towards the use of local lithic resources and triangular point production, and the use of ossuaries in mortuary practice. Hunting, gathering, and fishing were still practiced but to a lesser extent than before. The trend toward a more sedentary lifestyle culminated in the first large villages in the region during the Late Woodland period. Subsistence based on agriculture supported these large village communities (Barse et al. 2006). There is also evidence of chiefdom-level socio-political units within the Coastal Plain of Maryland and Virginia after A.D. 1500 (Dent 1995; Potter 1993). The shell-tempered, fabric-impressed ceramic tradition that began with Middle Woodland Mockley wares continued with the appearance of shell-tempered Townsend wares ca. A.D. 950 (Barse et al. 2006; Egloff and Potter 1982). Potomac Creek ceramics appeared along the lower Potomac River Valley ca. A.D. 1300 (Egloff and Potter 1982; Potter 1993). Potomac Creek is interpreted as an intrusive quartz/stone-tempered ceramic in areas where shell temper was dominant for a minimum of 1,000 years.

3.2 REGIONAL HISTORIC CONTEXT

The historic periods listed in the following cultural context section are those identified by the MHT as important time markers for this state. These periods include: Contact and Settlement (1570-1680); Rural Agrarian Intensification (1680-1815); Agricultural-Industrial Transition (1815-1870); Industrial Dominance (1870-1930); and Modern (1930-present).

3.2.1 Euro-American Contact and Settlement Period (AD 1600–1680)

The contact period begins with the first European exploration of the Chesapeake Bay region in the A.D. 1520s and ends with the establishment of the English colony at Jamestown in 1607. The earliest European contact with Middle Atlantic native populations consisted of sporadic landfalls made by European explorers, traders, missionaries, and slavers. These early forays had two significant impacts on Native peoples: the introduction of European trade goods and the introduction of European disease. New diseases devastated native populations that lacked European immunities (Hodges 1993).

English exploration of the Chesapeake Bay area began in 1585 with an expedition sent by Roanoke colony governor Ralph Lane (Dent 1995). This group spent the majority of its time around the mouth of the James River, but they are believed to have sailed as far north as the Chesapeake Bay (Potter 1993). Captain John Smith's explorations of the Chesapeake Bay area during the years 1608 to 1610 marked the first documented contact between European explorers and Native Americans in northern Virginia. Captain Smith's journal describes his travels and maps Indian village sites along the extensive estuaries of the Potomac River. European exploration and settlement in the area continued through the 1600s.

Sir George Calvert, the first Lord Baltimore, envisioned the founding of a colony as a haven for the then persecuted Roman Catholics living in an Anglican dominated Parliamentarian England, but also as an economic investment similar to the already established colonies of Virginia and Massachusetts. King Charles I, ruler of England from 1625 until his death in 1649, approved the request for the establishment of the Maryland colony in 1635, three years after the Sir George Calvert's death. The charter for the Maryland colony was officially granted to George Calvert's

son and second Lord Baltimore, Cecil Calvert (1605–1675) in 1635, although expeditions to the colony had begun around 1633. English colonists established St. Mary's City in 1634 as the first permanent settlement in Maryland.

From 1634 through 1680, the Calverts promoted the colony's settlement through the headright system in which small tracts of land were granted to those who funded their own or others' passage to the colony, usually 20.23 ha (50 ac) per "head." Over 34,000 land patents were recorded under the headright system, a figure that is thought to account for 80 percent of the settlers entering Maryland prior to 1684 (Kerns 2016; Maryland State Archives [MSA]). Early settlement focused on the Potomac and Patuxent Rivers, and Maryland quickly became an important tobacco-producing colony. The landscape remained sparsely populated, however, with few resident landlords.

Anne Arundel County was founded in 1649. In that same year, a group of settlers built a town along the north shore of the Severn River, calling it Providence (Luckenbach 1995:3). With this settlement came the loss of power in St. Mary's City as Providence's population grew beyond that of St. Mary's. By 1655, the political center of Maryland was temporarily moved from St. Mary's to Providence through the Battle of the Severn but was not permanently moved until 1695 with the building of Annapolis. In the late seventeenth century, settlers founded the town of Anne Arrundleton on the south side of the Severn River because it was perceived to be a more protected location than Providence.

3.2.2 Rural Agrarian Intensification (AD 1680–1815)

Maryland quickly became an important tobacco-producing colony in the seventeenth century. The large number of navigable rivers in Anne Arundel County encouraged dispersed settlements and plantations because tobacco could be sold and shipped from landings directly associated with plantations. The headright system was discontinued in 1680, after which land was acquired through direct purchase. Charles Calvert, third Lord Baltimore, accordingly established the Land Office to record and administer land transactions. Regional patents generally consisted of thousands of acres and were held by men of considerable means who would then sell or rent to tenants in smaller tracts.

Agriculture, specifically tobacco cultivation, remained the primary occupation of settlers and residents in the Anne Arundel County area through the eighteenth century (Wesler et al. 1981). The widespread cultivation of tobacco, a highly land- and labor-intensive cash crop, contributed towards the persistence of larger land holdings and the rise of slave ownership in the colony. In 1747, in an effort to regulate the quality and quantity of tobacco produced in the colony, the colonial legislature instituted tobacco inspections, a system already in place in Virginia. Tobacco inspection points were established throughout the colony and warehouses built. As in Virginia, communities developed around the tobacco inspection sites, and new land routes appeared to and between these communities (Wesler et al. 1981:165).

Little activity took place in the vicinity during the Revolutionary War. By 1780 the continued growth of tobacco and the lack of adequate fertilizer and generally poor farming practices had depleted both the soil and the ability of the county's farmers to earn a living and to feed their families. From 1780 to 1820 tobacco remained a popular crop but its yields declined over time. Significant waterways experienced siltation due to run off from farms along the waterways, resulting in the decline of former port towns. Soil depletion from intensive tobacco cultivation led to early crop diversification in parts of Maryland, and staples such wheat and corn

supplemented tobacco as major cash crops by the end of the eighteenth century (Kulikoff 1986; Wesler et al. 1981). Development of Baltimore in the 1780s began to draw commerce away from Annapolis in part because Baltimore featured a deeper port. Baltimore became the favored port for the transport of flour and grains as milling increased in Maryland.

3.2.3 Agriculture-Industrial Transition (AD 1815–1870)

The decline of tobacco prices began to bring about changes in Maryland. Commerce and industry became increasingly important, influencing the development of new transportation systems and local industries. Despite this trend towards industrialization, Anne Arundel County continued to rely on tobacco farming until the 1850s (Craven 1965). The large landholdings of the previous period gave way to smaller, family-owned farms that grew a variety of crops (Pearl et al. 1991). Annapolis did not experience industrial growth, although it remained the state capital. Baltimore became the economic center of Maryland (Bradford 1977).

The development of railroads, which traversed Anne Arundel County and connected the cities of Baltimore, Annapolis, and Washington D.C., contributed significantly to the economic and social changes within the county. Construction of the Baltimore and Ohio Railroad (B&O) began in 1828; by 1836 the B&O was completed to Harpers's Ferry. The Washington Branch of the B&O, Annapolis and Elkridge Railroad, and the Penn Central Railroad all laid tracks through Anne Arundel County during this period. The Annapolis and Elkridge Railroad, completed in 1840, was one of the first spurs to Annapolis and the second railroad constructed in Maryland. Several towns sprang up along the railroad line, including Millersville and Crownsville, and hotels, general stores and post offices were established at important transfer points (Gaber and Erlandson 1992:26). The railroads facilitated the growth of the iron industry in Maryland.

Though Maryland did not secede from the Union during the Civil War, Anne Arundel County sympathized with the Confederacy due, in part, to the tobacco based economy, which depended on slave labor. The area railroads were seen as a means of quickly transporting troops and supplies. In April 1861, southern sympathizers tore up the tracks of the Annapolis and Elkridge Railroad to prevent troops landing at the port of Annapolis from reaching Washington (Manakee 1961). With the end of the Civil War in 1865, the slaves in the county were emancipated.

3.2.4 Industrial Dominance (AD 1870–1930)

During the last years of the nineteenth century, the agricultural base of Anne Arundel County began to improve. Improved shipping and growing urban markets for truck and rail produce caused an increase in profits and the stabilization of the market economy. Foodstuffs such as vegetables and fruits were popular crops in the county because of the demand for them in urban areas. During this period there was also a rise in the industrial base of the county because of the introduction of canneries and the support factories required by those operations.

Northern portions of Anne Arundel County became more industrialized and were divided into small parcels. The southern part of the county lacked the transportation routes to participate in extensive industry. It eventually developed a profitable seafood industry, primarily based on oyster farming. Modern (AD 1930–Present)

The effects of both the Depression and post-World War II prosperity were both seen in Anne Arundel County. The introduction of motor vehicles and improved roads during the early twentieth century supported suburban settlement and the expansion of truck farming. Diversified

agriculture continued in much of the county, although suburban development expanded as the Washington D.C. area expanded.

3.3 PROJECT SPECIFIC HISTORIC CONTEXT

The earliest settlement in Annapolis in the seventeenth century took place along the shoreline and a harbor in a natural cove (Baker 1986:192). A 1690 map identifies the harbor as "Todd's Harbor" (Kerns 2016). Much of the seventeenth century development took place along what are now Shipwright and Market Streets to the south of the City Dock area.

In 1695, the Maryland colony capital was moved to Annapolis, which at the time was called Anne Arundel's Town or Arundelton. Maryland Governor Francis Nicholson had Annapolis laid out as a planned city with circles emphasizing the power of the state and church (Land 1981:96). The early city included a wharf and harbor in the location of the early harbor, establishing the town's importance as a port.

Annapolis was subdivided into lots by 1718 (McWilliams and Pappenfuse 1994). The town attracted wealthy landowners who built many of the large brick homes that remain today prior to the Revolutionary War (Land 1981:182). The port in Annapolis (i.e., City Dock) was wider than it is today as much of what is currently Compromise Street is built on nineteenth century fill. The port could only accommodate ships able to navigate the depth of the Severn River. Larger ships anchored in the South River and unloaded cargo onto smaller boats that could reach the dock (Land 1981:136). A new wooden deck lining the wharf was added by the middle of the eighteenth century. Properties lining the City Dock in the eighteenth century primarily included warehouses (McWilliams and Pappenfuse 1994).

As Maryland developed milling and other industries, shipping goods became more important; establishment of the deep-water harbor in Baltimore by the end of the eighteenth century drew commerce away from the Annapolis harbor. Annapolis officials made attempts in the 1830s to dredge the harbor and improve the City Dock (McWilliams 2011:135). Stone seawalls were constructed, and the dock was narrowed through deposition of fill (MD-DNR 2018a). Compromise Street was established by 1837 and occupation of the new land east of the street began (McWilliams 2011:209). A similar process of filling took place on the north side of the dock prior to the Civil War. Nineteenth century businesses along the City Dock included those that supported shipping, such as warehouses, coal and lumber yards, oyster packing plants, and boat repair shops (McWilliams 2011; Hopkins 1878). Photographs of City Dock and the surrounding area from 1906 provide a view of this development (Figures 4 and 5).

The oyster industry expanded after the Civil War, and development of the City Dock included oyster packing plants to process the seafood; by 1878, 14 oyster plants were in operation along the Annapolis waterfront (McWilliams 2011:207; Hopkins 1878). By-products of the oyster canning business, including oyster shells and spent coal, were deposited in lowlands along the harbor to create land (McWilliams 2011).

At the City Dock, the advent of motor vehicle travel and tourism precipitated construction of a service station in 1936 and installation of parking lots in the 1950s and 1960s (MSA 1949). Annapolis has seen significant expansion of the tourism industry since the mid-twentieth century, and City Dock is a notable locus.

Figure 4. 1906 View of Annapolis to Southeast

Figure 5. 1906 View Annapolis to East

CLIENT	City of Annapolis	TITLE	Historic Photographs
PROJ	City Dock Phase IA Archaeological Assessment		
SCALE	As Shown		
SOURCE	As Shown	PROJ NO	60533093
Q:\Projects\WR\City of Annapolis\Storm Drain and Flood Mitigation Design Services\400-Technical\432_Cultural\Graphics		FIGURE	4 and 5

AECOM 12420 Milestone Center Dr. Germantown, MD 20876

This Page Intentionally Blank

4.0 PREVIOUS INVESTIGATIONS

Research on previous investigations in the project vicinity was conducted using MHT's Medusa electronic database as well as reports of archaeological investigations in the immediate vicinity of City Dock. The primary goal of this research was to identify previous cultural resource investigations and previously recorded archaeological sites and above-ground resources within a 0.5-mi (0.8-km) radius of the project area. These data comprise a cultural resources profile of the surrounding area and aid in the contextualization of the project area's archaeological potential.

4.1 PREVIOUS CULTURAL RESOURCE SURVEYS

Nineteen Phase I archaeological surveys have been conducted and recorded with the MHT within a 0.5 mi (0.8 km) of the proposed LOD (Table 2). Two of these investigations included portions of the proposed LOD: AP069 and AP113. In addition to these surveys, monitoring projects and investigations conducted by the Archaeology in Annapolis Consortium, field schools, and other organizations aimed at documenting the history of Annapolis have resulted in identification of archaeological sites and above-ground resources in the vicinity. Investigations that included portions of the proposed LOD are discussed below.

Table 2. Phase I Archaeological Surveys within a 0.5-Mile Radius of the Proposed LOD

Survey #	Name	Date	Author
AP002	Martin Street Project: A Historical and Archaeological Research Study of the Martin Street Property, Annapolis, Maryland	1972	Contract Archaeology, Inc.
AP018	Excavations at the State House Inn, Annapolis, Maryland, a Preliminary Report	1985	Hopkins, Joseph W., III
AP019	Monitoring of Public Works Excavations, Church Circle, Annapolis	1986	Hopkins, Joseph W., III
AP023	Archeological Testing at the 193 Main Street, Site 18AP44, Annapolis, Maryland	1986	Shackel, Paul A. and Patricia Secreto
AP036	1991 Archaeological Excavations at Charles Carroll House in Annapolis, Maryland, 18AP45	1991	George Logan,Thomas Bodor,Lynn Jones
AP049	Final Archaeological Investigations at the Maynard-Burgess House (18AP64), an 1850-1980 African American Household in Annapolis, Maryland, Volumes I & II	1993	Mullins, Paul R. and Mark S. Warner
AP052	Phase I-II Archaeological Investigations on the Courthouse Site (18AP63), An Historic African American Neighborhood in Annapolis, Maryland	1993	Warner, Mark S. and Paul R. Mullins
AP055	Legacy Resource Management Program: Culture Resource Survey at the United States Naval Academy in Annapolis, Maryland, Volume I & Volume II	1994	Bodor, Thomas W., Gilda M. Anroman, Jean B. Russo, Hannah Jopling, and Kevin M. Etherton
AP056	Archaeological Survey at the Old Hall of Records, Saint Johns College Campus, Annapolis, Anne Arundel County, Maryland	1994	Otter, Edward
AP069	Cultural Resources Management Investigations For the Main Street Reconstruction Project, Annapolis, Maryland	1997	Polglase, Christopher R., April L. Fehr, Suzanne L. Sanders, Martha Williams, David Landon, Andrew D. Madsen, Kathleen Child, Michele Williams

Survey #	Name	Date	Author
AP070	Archaeological Survey of the United States Naval Academy Shoreline	1996	Aiello, Elizabeth A., and John L. Seidel
AP077	Phase I Archeological Investigations, Phase II Evaluation, and Phase III Mitigation Studies Related to the Replacement of the HTW Piping, United States Naval Academy, Annapolis, Maryland	1998	Sheehan, Nora, Martha R. Williams, Christopher R. Polglase, and Suzanne Sanders
AP080	Cultural Resources Management Investigation for the Site of the Proposed James Senate Office Building Addition, Annapolis, MD	1999	Sheehan, Nora B., Martha R. Williams, and April L. Fehr
AP081	Phase I-III Archeological Investigations for the Chilled Water Line Upgrade (P-165), Including Site 18AP83, U.S. Naval Academy, Annapolis, Maryland	1999	Sheehan, Nora B., Martha R. Williams, and Eleanor E. Breen
AP095	Phase I Archeological Survey for the Proposed Addition to the Lowe House of Delegates Office Building, Annapolis, Maryland	2002	Markell, Anne B., Martha Williams and Kathleen M. Child
AP113	Phase I/II Archaeological Testing on Fleet Street (18AP111), Cornhill Street (18AP112), and 26 Market Space (18AP109), for the Proposed Fleet and Cornhill Streets Reconstruction Project, Annapolis, Maryland	2008	Cochran, Matthew David, Matthew M. Palus, Stephanie N. Duensing, John E. Blair, Jocelyn E. Knauf, Jessica Leigh Mundt
AP115	Phase I Archaeological Investigations, Annapolis Elementary School, 180 Green Street, Annapolis, Maryland.	2010	Tourville, Steven F., Shawn Sharpe, and John E. Kille
AP116	Archeological Investigations for Proposed Improvements to the Maryland Inn, Annapolis, Maryland.	2007	Child, Kathleen and Christine Heidenrich
AP123	Archeological Assessment of the Annapolis Post Office Parcel, 1 Church Circle, Annapolis, Maryland.	2016	Child, Kathleen, Martha R. Williams, and Katie L. Kosack
N/A	Archaeological Monitoring for the Annapolis City Dock Bulkhead Repair Project March 1-25, 2016.	2016	Kerns, Mechelle

The Archaeology in Annapolis Consortium conducted excavations within the playground portion of the city park at the corner of Newman and Compromise Streets in 1984 (Archaeology in Annapolis 1984), which intersects the proposed footprint for the south pump station. Specifically, the project included the excavation of eight 5-x-5-ft test units in a playground area southwest of the basketball court, which documented site 18AP39. The report specifically noted that the area underneath the basketball court is built on fill and likely contains undisturbed archaeological deposits underneath as well as that the front of the park adjacent to Compromise Street would have corresponded to the eighteenth and early nineteenth century waterfront and thus have the potential to contain wharves and related structures (Archaeology in Annapolis 1984:25).

In 1997, R. Christopher Goodwin and Associates conducted cultural resources investigations along Main Street from Church Circle to Compromise Street (AP069; Polglase et al. 1997). This investigation included geotechnical soil borings and limited test unit excavation within identified sites, which primarily consisted of eighteenth century domestic resources. Soil borings identified 4.5 to 8.5 feet of fill at various locations along Main Street. While remnants of historic cultural deposits were found, the deposits were often “fragmentary and isolated from their original site context because of the extensive history of utility placement and other public work activities along the street” (Polglase et al. 1997:203). The southeastern end of the project area extended

into the proposed LOD, although none of the sites documented during this study fall within the proposed LOD.

In 2008, archaeologists from the Department of Anthropology at the University of Maryland completed Phase I/II archaeological testing for the Annapolis Public Works Bureau along Cornhill and Fleet Streets west of Market Space (AP113; Cochran et al. 2008). Researchers identified evidence of eighteenth century land reclamations buried 2 to 4 ft (0.6 to 1.2 m) below the surface and an eighteenth century corduroy road 4 ft (1.2 m) below the surface recorded as site 18AP109 (Cochran et al. 2008). The far southeastern end of the survey area corresponds with the northwestern end of the proposed LOD.

In 2016, Kerns Consulting monitored bulkhead construction and repair activities at the City Dock (Kerns 2016). Two archaeological sites buried below fill were found, 18AP123 and 18AP124; portions of these sites, which are discussed below, intersect with the proposed LOD. This study is perhaps the most illuminating regarding the potential for significant archaeological resources within the proposed LOD.

4.2 PREVIOUSLY RECORDED ARCHAEOLOGICAL RESOURCES

The City Dock is near the densely developed historic city center, and numerous archaeological resources have been documented within the vicinity of the project area. In total, 88 archaeological sites have been registered with the MHT within a 0.5-mi (0.8 km) radius of the proposed LOD. These sites represent the remains of late seventeenth through early twentieth century homes, businesses, and industrial sites as well as garden and yard deposits associated with extant buildings.

Four of the sites are located within the proposed LOD, including the proposed linear stormwater-related activities. The sites are all recorded as being buried beneath 2 to 5 ft (0.6 to 1.5 m) of late nineteenth and twentieth century fill.

Site 18AP39, the Newman Street site, is located within the footprint of the south pump station and spans the entire city park at Compromise and Newman Streets. The site is the location of an eighteenth century wharf and tannery, although eighteenth century levels were not reached in previous testing due to deep fill and a high water table. Testing suggested, however, that intact soil horizons remained below the fill, and the site is considered potentially eligible for listing in the National Register of Historic Places (NRHP) (Archaeology in Annapolis Consortium 1984). Per the site file, excavations in the western quadrant of the site revealed up to 5 ft (1.5 m) of nineteenth and twentieth century fill, which covered an earlier historic landscape.

Site 18AP109 (MIHP AA-596) is located underneath the sidewalk fronting 26 Market Space at the intersection with Fleet Street. This site has been determined eligible for the NRHP under Criterion D (Cochran et al. 2008). The site includes deeply buried remnants of the historic streetscape from the late seventeenth through twentieth century. Identified resources include evidence of the original shoreline, historic road and sidewalk paving and curbing, and artifact deposits. A linear portion of the proposed LOD passes through this site.

Site 18AP123 is located at 144 Compromise Street, underneath the parking lot south of the intersection of Compromise Street and Spa Creek. The site was identified during monitoring of trenching for utility installation in 2016 (Kerns 2016). This site includes a nineteenth century corduroy road and mid-twentieth century gas station and storage tank. The corduroy road runs along Compromise Street. Due to the remains of the Southern Oil Company Station, soils were

contaminated, preventing archaeologists from accessing trenches to document features. A linear portion of the proposed LOD passes through this site.

Site 18AP124 is immediately northwest of the north pump station footprint and within proposed linear trenching. Site 18AP124 includes the cut stone remains of an early to mid-nineteenth century seawall and wooden wharf, as well as brick footers associated with a nineteenth century oyster packing house. Features were buried below 2 to 3 ft (0.6 to 0.9 m) of fill. The site was recorded during monitoring activities related to utility installation (Kerns 2016). While the portion of the site exposed in 2016 was disturbed, archaeologists noted that the site extends beyond the 2016 testing area (Kerns 2016), possibly into the footprint of the north pump station.

The proposed LOD is immediately adjacent to two other previously recorded archaeological sites, 18AP14 and 18AP33. Site 18AP14, the Victualling Warehouse site, consists of archaeological remains from an eighteenth century warehouse and the use of the current building as a warehouse and store in the nineteenth century. Extensive archaeological work was conducted in 1972 within the interior of the current building and from 1982-1984 in the building's yard (Crosby 1984). Site 18AP33, the Shaws Shop site, is the former location of workshops dating to the eighteenth century and commercial buildings dating to the nineteenth century. The site was documented as a result of test pits dug by Henry Wright in 1963 and a Phase I archaeological survey conducted in 2010 (Tourville et al. 2010), and it is reportedly covered in two feet of nineteenth century refuse.

4.3 PREVIOUSLY RECORDED ABOVE-GROUND RESOURCES

Within a 0.5-mi (0.8-km) radius of the project area are, over 930 recorded above-ground resources, reflecting the historic nature of the city center. Nineteen of these resources are listed in the NRHP (Table 3). Most of the above-ground resources are included within the Colonial Annapolis and Annapolis NR Historic Districts, which encompass the proposed LOD. One additional NRHP resource in the immediate vicinity of the proposed LOD is the Mustang (AA-863), an early twentieth century brogan vessel noted as moored at the City Dock.

Table 3. NRHP Above-Ground Resources within 0.5 Mile of the Proposed LOD

MIHP #	Name
AA-2046	Annapolis Historic District
AA-645	Artisan's House
AA-485	Brice House
AA-36	Chance Boatyard
AA-628	Chase-Lloyd House
AA-137	Colonial Annapolis Historic District/National Historic Landmark
AA-657	Governor William Paca House and Garden
AA-626	Hammond-Harwood House
AA-1	HELIANTHUS III (yacht), site
AA-709	House by the "Town Gates"
AA-451	John Callahan House
AA-685	Maryland State House
AA-506	Mount Moriah African Methodist Episcopal Church
AA-863	MUSTANG (brogan)
AA-581	Old City Hall and Engine House
AA-654	Patrick Creagh House

MIHP #	Name
AA-724	Peggy Stewart House
AA-359	United States Naval Academy
AA-726	Upton Scott House

This Page Intentionally Blank

5.0 METHODS

5.1 OBJECTIVES

The objectives of this Phase Ia study were to document historic land modifications within the project area, investigate the presence of and potential for archaeological resources within the proposed LOD, and to determine if further archaeological investigation is required.

5.2 BACKGROUND RESEARCH

General background information was gathered from a variety of electronic and published resources in order to provide a broad cultural context. Historic cartographic data were drawn primarily from the Library of Congress and USGS digital maps databases in order to depict local land use/development patterns. Historic maps were georeferenced using GIS in order to assess if depicted resources may have been present within the APE. Resource forms and survey report information available online through MHT was reviewed to characterize the known archaeological record. No chain-of-title or U.S. Census research was conducted for this assessment.

This Page Intentionally Blank

6.0 ANALYSIS AND RECOMMENDATIONS

The City of Annapolis (City) is developing plans to mitigate flooding at City Dock through construction of two new pump stations, realignment of existing storm drain systems, and grading along the existing bulkhead. AECOM conducted a Phase Ia archaeological assessment for the proposed project. Results of the desktop analysis are presented below, followed by recommendations regarding additional archaeological investigation within the LOD.

6.1 ARCHAEOLOGICAL POTENTIAL ANALYSIS

A review of historic maps, previous investigations, recorded sites, and existing conditions contributed to an analysis of the archaeological potential within the proposed LOD. Due the number of historic maps included as figures, all of the cited figures are presented at the end of Section 6 instead of interspersed within the text.

6.1.1 Historic Maps

City Dock is part of the Colonial Annapolis Historic District (AA-137); the district was designated a National Historic Landmark in 1965. The City Dock area has undergone extensive changes throughout its history. Shoreline changes between 1847 and 1994 are shown in Figure 6; between 1847 and 1934 much of the harbor was infilled to create buildable land. Kerns (2016) indicates most of the filling occurred after the 1860s. Despite much of this area consisting of made land, the archaeological potential of the areas filled in during the nineteenth and early twentieth century is high as numerous buildings and structures occupied this new land, as is discussed below.

One of the earliest maps of the area is a 1690 map that is based on a 1651 plat map of Todd's Harbor (Figure 7; Kerns 2016). The map shows a natural cove ("the Dock Cove" on the map) that was the focus of development into City Dock. The overlay of the project area onto this map shows most of the proposed LOD in water or on tidal lands with only small portions located on land above the high tide mark. Annapolis was not established until 1696; the 1794 Griffith map of Maryland shows Annapolis but does not contain sufficient detail to show the City Dock area (Figure 8).

An 1819 map shows the layout of city streets and the harbor, which seems not to have been drawn to scale as it is significantly larger than represented on previous or later maps (Figure 9). Nevertheless, at least half of the proposed LOD appears to have been open water or tidal land at that time. The 1846 US Coast Survey map suggests some infilling had occurred at the mouth of the harbor where it joins Spa Creek (Figure 10). Specifically, the location of the north pump station is depicted as dry land, possibly occupied by a building of some description. Additionally, the portion of the proposed LOD along Compromise Street and along Newman Street, once located in the water, are depicted on dry land.

The 1860 Martenet map shows an irregular shoreline along City Dock and steamboat wharves noted at the mouth of the harbor (Figure 11). Note that Market House is not drawn to scale on this map – the proposed LOD does not actually intersect this building (see Figure 2). The proposed LOD on the north side of the dock, including the north pump station, is depicted as largely overlaying water, although the 1846 US Coast Survey depicted the location of the north pump station as dry land. The proposed LOD on the south side largely overlays land, but the 1860 Martent map shows Newman Street extending into the water, while 1846 US Coast Survey

shows it as dry land. These discrepancies are a result of scale and survey accuracy issues with these older historic maps.

Hopkin's 1878 map is the first to show details on buildings and layout of the dock area (Figure 12). The general vicinity of City Dock included a variety of residences and businesses, including ice houses, coal and lumber yards, canneries, and oyster houses. Compared with the 1847 shoreline (see Figure 6) a significant amount of the waterfront was infilled and narrowing of the harbor begun by 1878.

Specifically on the northeast side of City Dock, the northern portion of the proposed LOD is depicted as running along the northeastern bulkhead of City Dock, in city streets, on land owned by Joseph S.M. Basil, or within open water; a very small portion intersects the Rowland Wharf. While the northwestern and far southeast portions of the proposed LOD on the southwest side of City Dock ran almost entirely through city streets, except a portion intersecting a building labeled "Coal Office", the central portion, Newman Street portion, and the south pump station location all appear to intersect former buildings. Specifically, these appear to include buildings associated with the Joseph S.M. Basil Coal and Lumber Yard (including an ice house) and buildings associated with. Daniel Hyde.

Sanborn maps dating between 1885 and 1921 document the changes that occurred along the waterfront as properties were acquired, consolidated, subdivided, and sold (Figures 13-18). Additional infilling along the southeastern margins of the harbor is evident as are changes to the commercial properties along the waterfront. Although there were some issues with accurate georeferencing of some of the Sanborn maps, these maps give a very good indication of the types of buildings present within the proposed LOD.

Along the northeastern side of City Dock, the 1885 Sanborn (Figure 13) shows the trenching portions of the proposed LOD crossing through a building labeled "B.Sm." (which typically means blacksmith on Sanborn maps) at the northern corner of City Dock and clipping the edge of a boat house at the end of Dock Street. The northern pump station and trenches in its immediate vicinity overlap former oyster packing buildings, an office, a "Coal & Wood Yard," and portions of "Tenements." While most of the northern portion of the proposed LOD on the southwest side of City Dock runs underneath streets, one trench runs along the edge of City Market and one crosses over likely bulkheads along City Dock. Trenches also cut through numerous buildings associated with the Basil and Parlett Lumber Yard, including one containing a saw mill and a grist mill, an office, a cement and lime building, and the edge of an ice house. At the end of Compromise Street, trenches cross the former location of multiple "Tenement" dwelllings. The footprint of the south pump station and an adjacent trench overlap two dwellings and two sheds associated with the J.B. Flood Lumber Yard as well as a part of a dwelling on the southwest side of Chestnut Street (now Newman Street).

The 1897 Sanborn (Figure 14) depicts the ever changing built landscape of the project area. Along the northeast side of City Dock, the building labeled "B.Sm." is no longer depicted, but trenching instead cuts through a building labeled "Market" (labeled "Fish Market" on later maps) with an attached restaurant at the head of City Dock. At the southeastern end of City Dock, near the end of Dock Street, the trench lines cross a number of newly depicted buildings including a dwelling associated with "Burtis" and portions of wharfs associated with Martin and Company's oyster packing house. Around the north pump station, the tenement buildings are the only buildings remaining that were also depicted on the 1885 Sanborn. The location "Coal & Wood

Yard" from the 1885 map contains "Meyers Lumber Yard" and a variety of oyster packing houses associated with the "Colored Union Packing Company," Martin & Company, and "Collins" that do not match the footprint of prior oyster packing houses. The main change to the built environment on the southwest side of City Dock appears to be additional construction on the south side of the previously noted grist and saw mill and a new lumber shed on the west side of Compromise Street that is also associated with the Basil & Parlett company. The proposed LOD does cut through a small portion of a former furniture store and an addition fronting Church Street (now Main Street).

The built environment within the proposed LOD on the northeast side of City Dock as depicted on the 1903 Sanborn (Figure 15) changed significantly in the area around the north pump station and at the end of Dock Street. Almost all of the buildings in and around the footprint of the north pump station, except for a building previously labeled as a car port and as a boat making building on the 1903 map, had been demolished and replaced by buildings associated with the Annapolis Ice Manufacturing Company. At the end of Dock Street, the Martin & Company oyster packing house had been replaced by storage sheds and a new oyster house and storage building built to the northeast. While the northern extension of a trench at this location appears to cross through different buildings than on the 1897 map, this is due to scalar issues and not a change in the buildings.

The built environment at the northern and southern ends of the proposed LOD on the southwest side of City Dock shown on the 1903 Sanborn (Figure 15) is identical to that on the 1897 Sanborn except that an addition on the front side of a furniture shop on Church Street (now Main Street) had been expanded. However, the area within and around the south pump station and along Newman Street underwent significant changes in that six year period. The house crossed by the trench to the north of the south pump station had been turned into a duplex. The buildings formerly with the south pump station footprint are not depicted. Rather, there is a duplex depicted at the intersection of Compromise and Chestnut (aka Newman) streets, and the lot between this duplex and the aforementioned one contained a building complex, with the street-facing building labeled "Pool R',m" and the rear building being a dwelling. Additionally the southwestern portion of the south pump station footprint is occupied by numerous row houses and a wagon house. The ice house once extant on the Basil & Parlett property had been removed and the proposed LOD along Newman Street crosses through a crab packing building.

Except for the demolition of the oyster house at the southwestern end of Craig Street and an abandoned supply building depicted in the middle of the trench line northwest of the north pump station the building environment depicted on the 1908 Sanborn map (Figure 16) within the proposed LOD on the northeast side of City Dock mirrors that depicted on the 1903 map. The only notable changes within the proposed LOD on the southwest side of City Dock are the demolition of addition on the front side of a furniture shop on Church Street and the construction of two new dwellings (and demolition of the wagon house) within the footprint of the south pump station. Figures 4 and 5, ca. 1906 photographs presented in Section 3, clearly shown many of the buildings shown on the 1908 Sanborn, including the Parlett & Parlett (formerly Basil & Parlett) complex between Compromise Street and City Dock and the Annapolis Ice Manufacturing Company complex on the northeast side of City Dock.

Within the proposed LOD northeast of City Dock, the only notable change in the built environment between the 1908 Sanborn and the 1913 Sanborn (Figure 17) is the demolition of the small dockside building northwest of the north pump station. On the southwest side of City

Dock, the only notable change on the 1913 map is the construction of a large ice factory building on the northwest side of Chestnut Street (now Newman Street), the footprint of which is clipped by the proposed LOD.

On the 1921 Sanborn map (Figure 18), the most notable change within the proposed LOD northeast of City Dock is the demolition of the Annapolis Ice Manufacturing Company building complex. The other change is the demolition of a building at the end of Carroll Alley (Dock Street) labeled "Builders Supplies" on the 1913 map. There are no apparent changes between the 1913 and 1921 Sanborn maps within the northern half of the proposed LOD southwest of City Dock. However, a large building labeled "Auto" is on the 1921 map, partially within the footprint of the south pump station, and the tenement houses at the southern end of the proposed LOD along Compromise Street had been demolished.

A 1944 USGS topographic map shows the waterfront at roughly its modern configuration (Figure 19). This map shows few buildings, though, due to the dense urban nature of downtown Annapolis, but several are noted on the southwest side of the dock, southeast of Newman Street. No individual buildings are shown within the proposed LOD.

6.1.2 Previous Archaeological Investigations

As noted in Section 4, a number of previous archaeological investigations have documented archaeological deposits within the proposed LOD. Notable is site 18AP39, which was documented by the Archaeology in Annapolis Consortium in 1983 within a portion of the park at the western corner of the intersection of Newman Street and Compromise Street (Archaeology in Annapolis 1984). The site reportedly consists of remains related to a wharf and tannery dating to the eighteenth century, though eighteenth century deposits were not documented due to the high water table. Portions of the site were covered in up to 5 ft (1.5 m) of fill. The site was recommended potentially eligible for listing in the NRHP.

Proposed trenching across Market Space toward Fleet Street intersects with a portion of site 18AP109 (MIHP AA-596), which is located underneath the sidewalk fronting 26 Market Space at the intersection with Fleet Street. The site includes deeply buried remnants of the historic streetscape dating from the late seventeenth through twentieth centuries. This site has been determined eligible for the NRHP under Criterion D (Cochran et al. 2008).

The recent archaeological monitoring project conducted by Kerns (2016) during a bulkhead repair and infrastructure improvement project completed at the dock uncovered numerous artifacts and archaeological features, including some located within the proposed LOD. Artifacts dating from the late eighteenth through early twentieth centuries were recovered from trenches. The earliest artifacts (some dating to the late eighteenth century) were recovered from the northeast side of the dock, while nineteenth and twentieth century artifacts were recovered from the southwest side of the dock. Features documented on the northeast side of the dock, recorded as site 18AP124, include a ca. 1830s stone seawall and bulkhead, wooden wharf pilings and framing, wooden pilings from a ca. twentieth century seawall and bulkhead, and brick and concrete building foundations related to a ca. 1870s oyster packing plant, among other features (Kerns 2016). On the southwest side of City Dock, northeast of Compromise Street, trenching documented a ca. nineteenth century wooden corduroy road and fuel tanks and foundations associated with an early to mid-twentieth century gas station, all of which were recorded as site 18AP123 (Kerns 2016). Kerns' (2016) study demonstrates the presence of historic archaeological resources dating from the late eighteenth century to the early twentieth century

around City Dock. Portions of the proposed LOD intersect with the two sites documented as part of Kerns' study.

6.2 RECOMMENDATIONS

Despite the extensive development in the project area, there generally remains a high potential for significant historic archaeological resources related to development and use of the historic waterfront. The historic mapping, especially the Hopkins 1878 map and the Sanborn maps, show the potential for the remains of numerous buildings and structures, as well as associated artifacts and features, is high within the majority of the proposed LOD. This is supported by archaeological investigations that have occurred within or in the immediate vicinity of the proposed LOD, most specifically the 1984 investigation at site 18AP39 by Archaeology in Annapolis and the 2016 archaeological monitoring conducted by Kerns. Conversely, there is low potential for prehistoric archaeological resources due to extensive infilling for the creation of City Dock.

A number of locations along the proposed trench lines for the replacement of storm sewer pipes intersect with the locations of buildings and structures depicted on historic maps. The trench running from the intersection of Randall Street and Dock Street southeast towards the north pump station runs through the former location of bulkheads as well as a former restaurant, a possible blacksmith shop, a storage building, and oyster packing houses. The trench running southeast from the north pump station along Dock Street intersects the footprints of numerous former buildings and structures, including oyster houses/packing sheds, storage sheds, a boat house, and wharves. The other trench running southeast from the north pump station along the edge of City Dock intersects with former bulkheads.

A northeast trench extension through the parking lot east of the intersection of Main Street and Compromise Street intersects with the former location of a saw mill, grist mill, and other buildings associated with the Basil & Parlett complex. While the main building had ceased its function as a mill between 1897 and 1903, the building footprint remained consistent until its demolition sometime after 1921. The southern end of the proposed LOD along Compromise Street intersects with the former location of numerous dwellings depicted on late nineteenth and early twentieth Sanborn maps. This location now consists of St. Mary's Street and the front yard of a house at the southern corner of the intersection of St. Mary's Street and Compromise Street.

Additionally, while many of the trenches run underneath roads, the recent uncovering of historic wooden corduroy road segments near Market Space (Cochran et al. 2008) and Compromise Street (Kerns 2016) highlights the potential for historic roadway surfaces to be preserved underneath the modern road system.

The potential for intact archaeological deposits within the trenching portions of the proposed LOD is dependent on the width of the original trenching for the installation of the current storm drains and the width of the proposed trenching compared to the width of the original trenching. However, intact archaeological remains could potentially be exposed in trench walls even if the prior trenching destroyed archaeological resources within their direct routes.

The footprints of both pump stations and the immediately surrounding trenches intersect with the former locations of numerous residential and commercial buildings and structures. Specifically, the north pump station and surrounding trenches correspond to the former locations of oyster packing sheds, a coal and wood yard, and the facilities of the Annapolis Ice Manufacturing

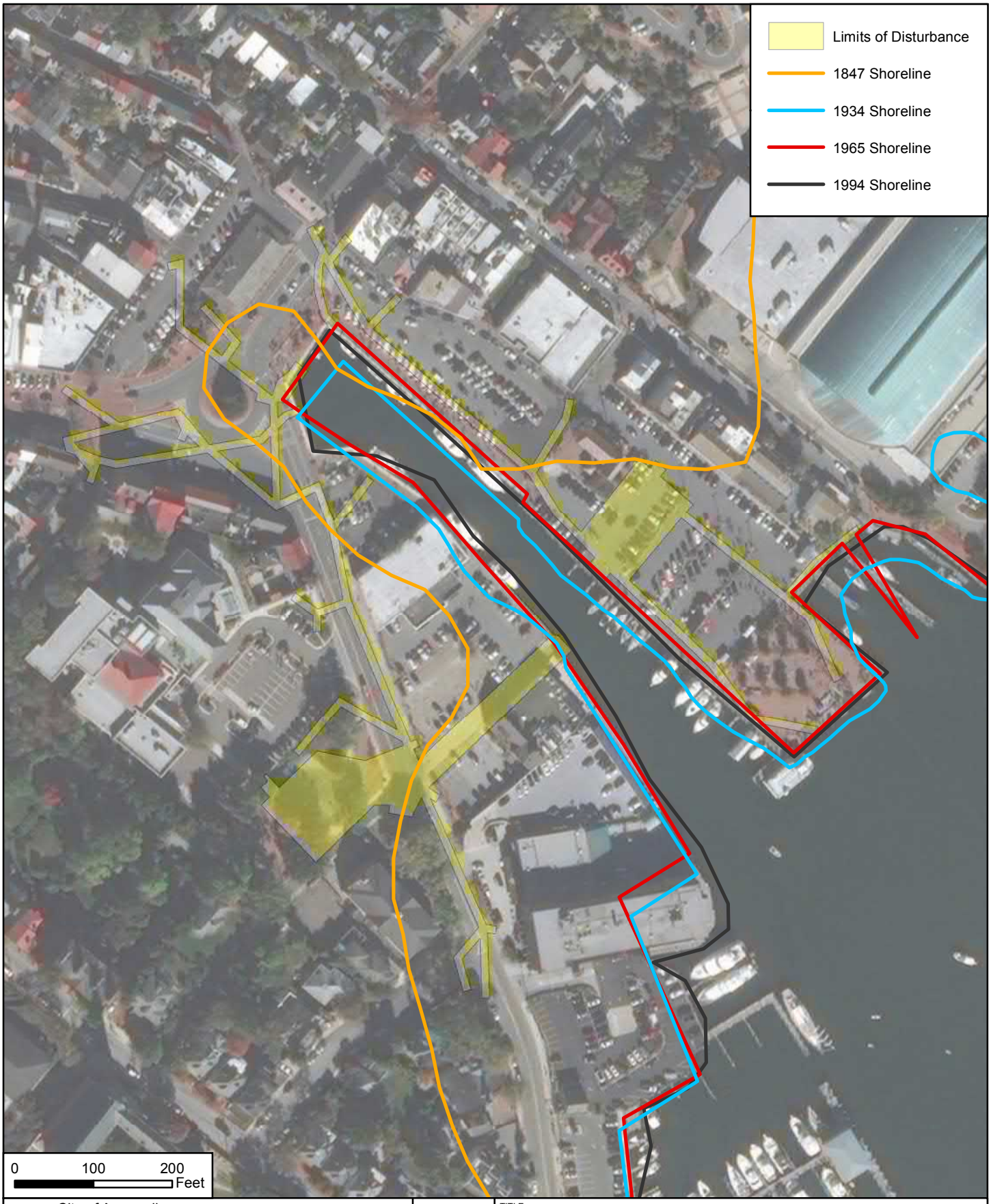
Company as well as small portions of tenement dwellings. Archaeological investigations trenching performed for utility runs to the Harbormaster's Office encountered archaeological remains within the footprint of the north pump station recorded as site 18AP124 (Kerns 2016). Late nineteenth and early twentieth Sanborn maps depict numerous dwellings within the footprint of the south pump station. Additionally, site 18AP39, which contains documented late eighteenth through early twentieth century archaeological deposits, is recorded within the footprint of the south pump station and has been determined eligible for listing in the NRHP (Archaeology in Annapolis 1984).

While the accuracy of buildings depicted on historic mapping extends only to 1878, the roots of Annapolis date back to the late seventeenth century, and prior archaeological investigations have shown that portions of the proposed LOD, the south pump station being a specific example, have the potential to contain early nineteenth and even eighteenth century archaeological remains.

AECOM recommends archaeological monitoring during construction for the linear portions of the proposed LOD where realignment of existing storm drains is slated to occur. In addition, archaeological monitoring is recommended for the slight grading modifications associated with the bulkhead.

AECOM recommends a Phase I archaeological survey of the pump stations to determine the nature and extent of potentially significant intact archaeological resources. It is highly likely that significant and extensive archaeological deposits are located within the footprints of both pump stations (the south pump station most specifically) that would be adversely affected by construction of the project, and documentation of any archaeological deposits within these two areas as part of construction monitoring would be difficult and potentially have deleterious effects on construction scheduling and costs. As such, it is recommended that, to the extent possible, archaeological investigations within the footprints of the two pump stations occur prior to the initiation of construction activities.

Traditional archaeological survey in an urban environment typically entails mechanical trenching, and this would be most difficult at the site of the south pump station, which contains a basketball court and playground equipment used by the adjacent Annapolis Elementary School as well as a public park. An archaeological survey of the south pump station could consist of non-destructive geophysical survey using ground penetrating radar, while the survey of the north pump station could consists of mechanical trenching.



CLIENT	City of Annapolis
PROJ	City Dock Phase IA Archaeological Assessment
SCALE	1:2,000
SOURCE	City of Annapolis 2018; Esri 2018
	Q:\Projects\WR\City of Annapolis\Storm Drain and Flood Mitigation Design Services\400-Technical\432_Cultural\GIS\Fig 4_shoreline map.mxd

N

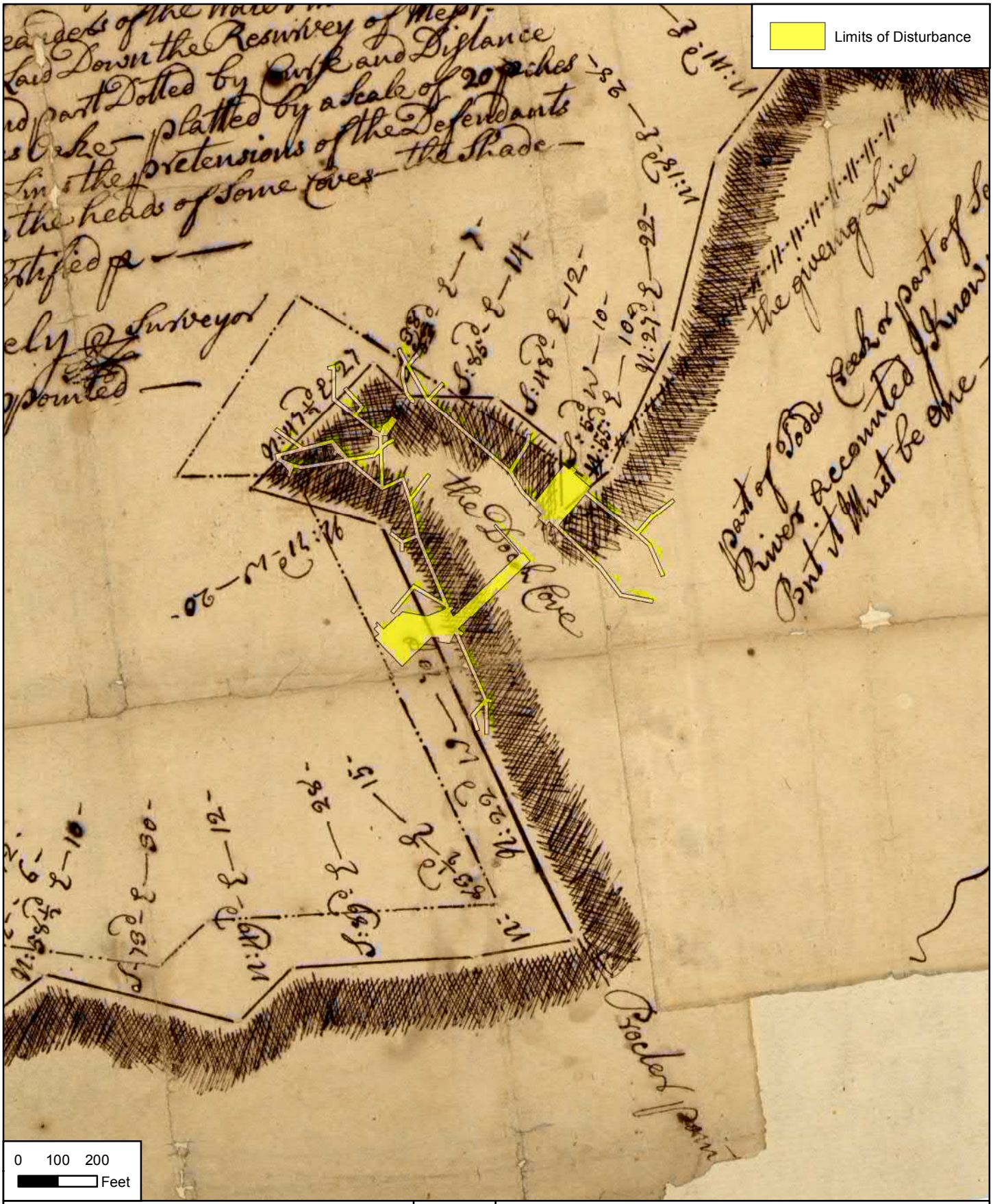
TITLE

Shoreline Changes: 1847 - 1994

AECOM

12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO	60533093
FIGURE	6

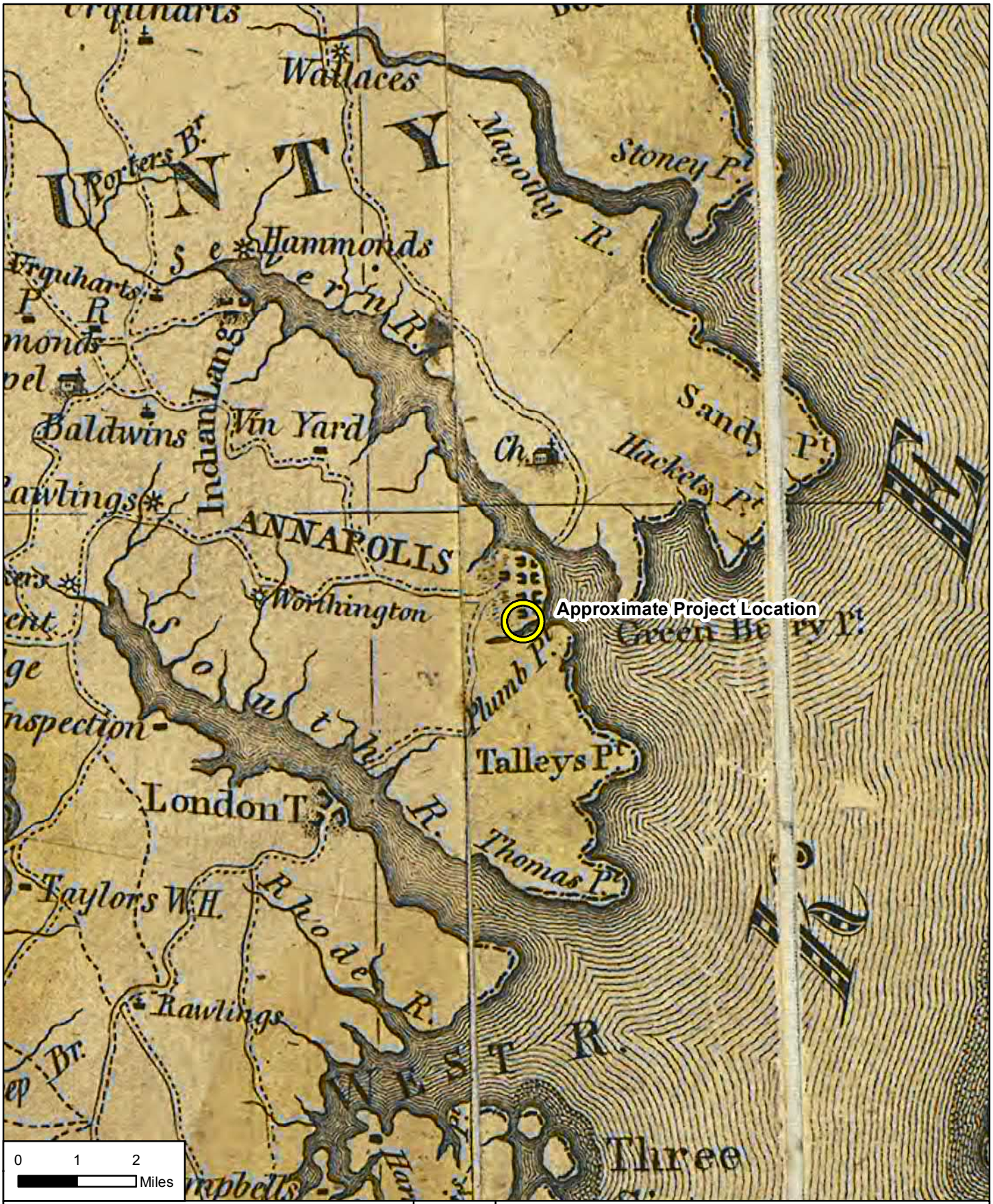


CLIENT	City of Annapolis
PROJ	City Dock Phase IA Archaeological Assessment
SCALE	1:4,000
SOURCE	Ridgeley 1690
	Q:\Projects\WR\City of Annapolis\Storm Drain and Flood Mitigation Design Services\400-Technical\432_Cultural\GIS\Fig 5_1690 map.mxd

TITLE
1690 Ridgeley Map

AECOM
12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO 60533093
FIGURE 7



CLIENT	City of Annapolis
PROJ	City Dock Phase IA Archaeological Assessment
SCALE	1:141,688
SOURCE	Griffith 1794
	Q:\Projects\WR\City of Annapolis\Storm Drain and Flood Mitigation Design Services\400-Technical\432_Cultural\GIS\Fig 6_1794 map.mxd

N

TITLE
1794 Griffith Map

AECOM
12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO 60533093

FIGURE 8

CLIENT	City of Annapolis
PROJ	City Dock Phase IA Archaeological Assessment
SCALE	1:6,000
SOURCE	Brantz and Fielding 1819
	Q:\Projects\WR\City of Annapolis\Storm Drain and Flood Mitigation Design Services\400-Technical\432_Cultural\GIS\Fig 7_1819 map.mxd

N

TITLE

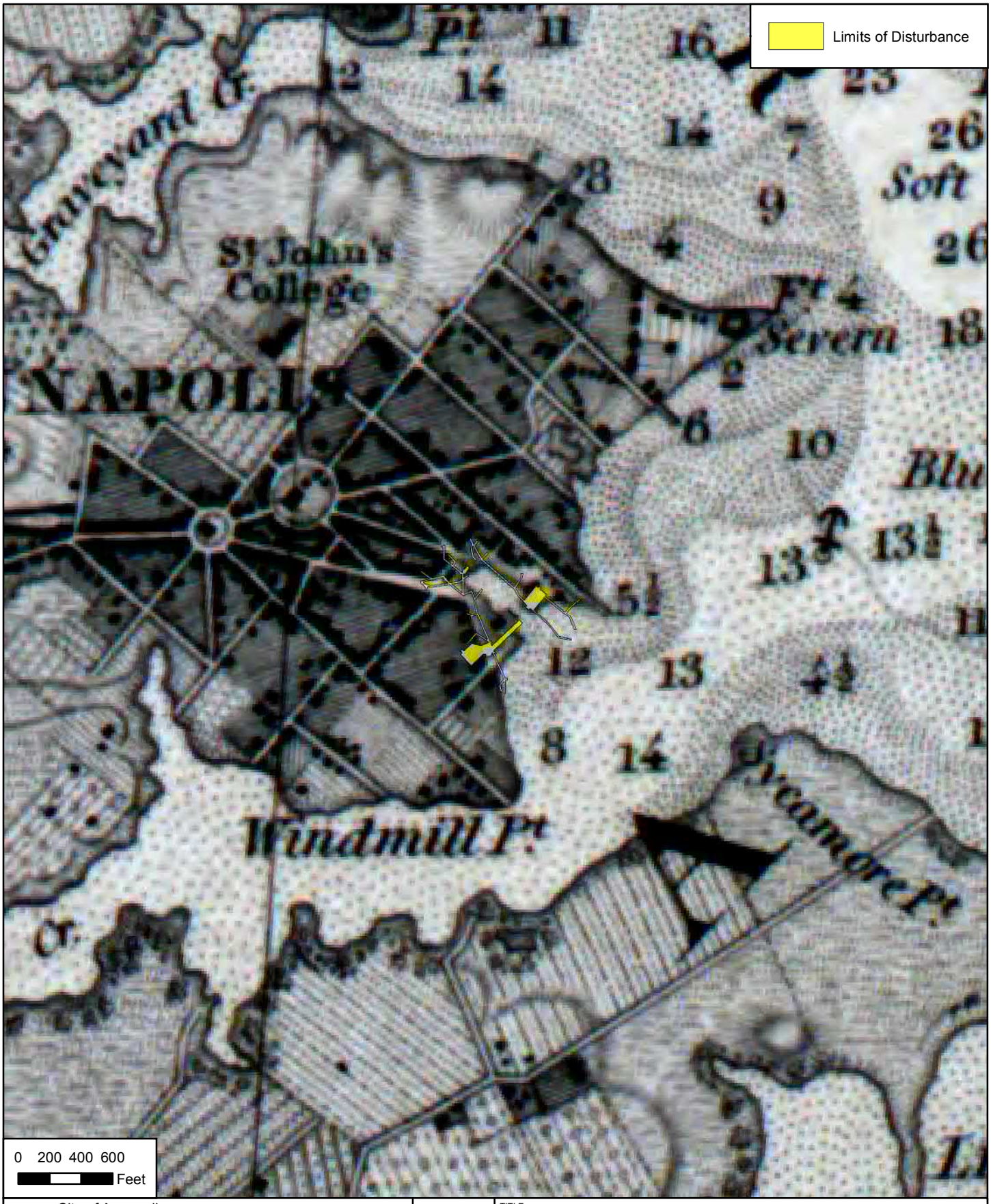
1819 Brantz and Fielding Map

AECOM

12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO 60533093

FIGURE 9



CLIENT	City of Annapolis
PROJ	City Dock Phase IA Archaeological Assessment
SCALE	1:10,000
SOURCE	USCS 1846
	Q:\Projects\WR\City of Annapolis\Storm Drain and Flood Mitigation Design Services\400-Technical\432_Cultural\GIS\Fig 8_1846 map.mxd

TITLE: 1846 US Coast Survey Map

AECOM 12420 Milestone Center Dr. Germantown, MD 20876

PROJ NO 60533093

FIGURE 10

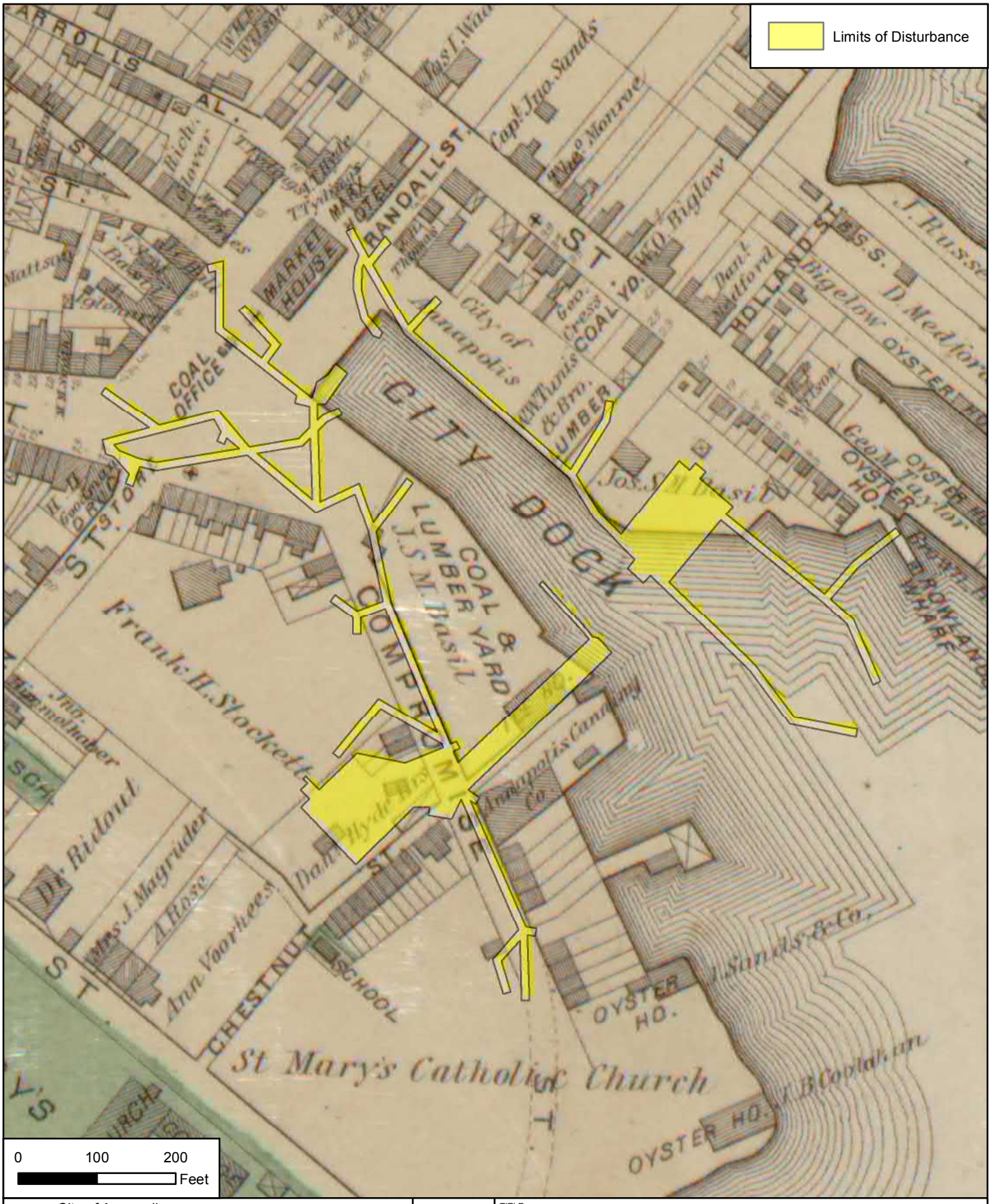
CLIENT	City of Annapolis
PROJ	City Dock Phase IA Archaeological Assessment
SCALE	1:2,500
SOURCE	Martenet 1860
	Q:\Projects\WR\City of Annapolis\Storm Drain and Flood Mitigation Design Services\400-Technical\432_Cultural\GIS\Fig 9_1860 map.mxd

TITLE: 1860 Martenet Map

AECOM
12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO 60533093

FIGURE 11



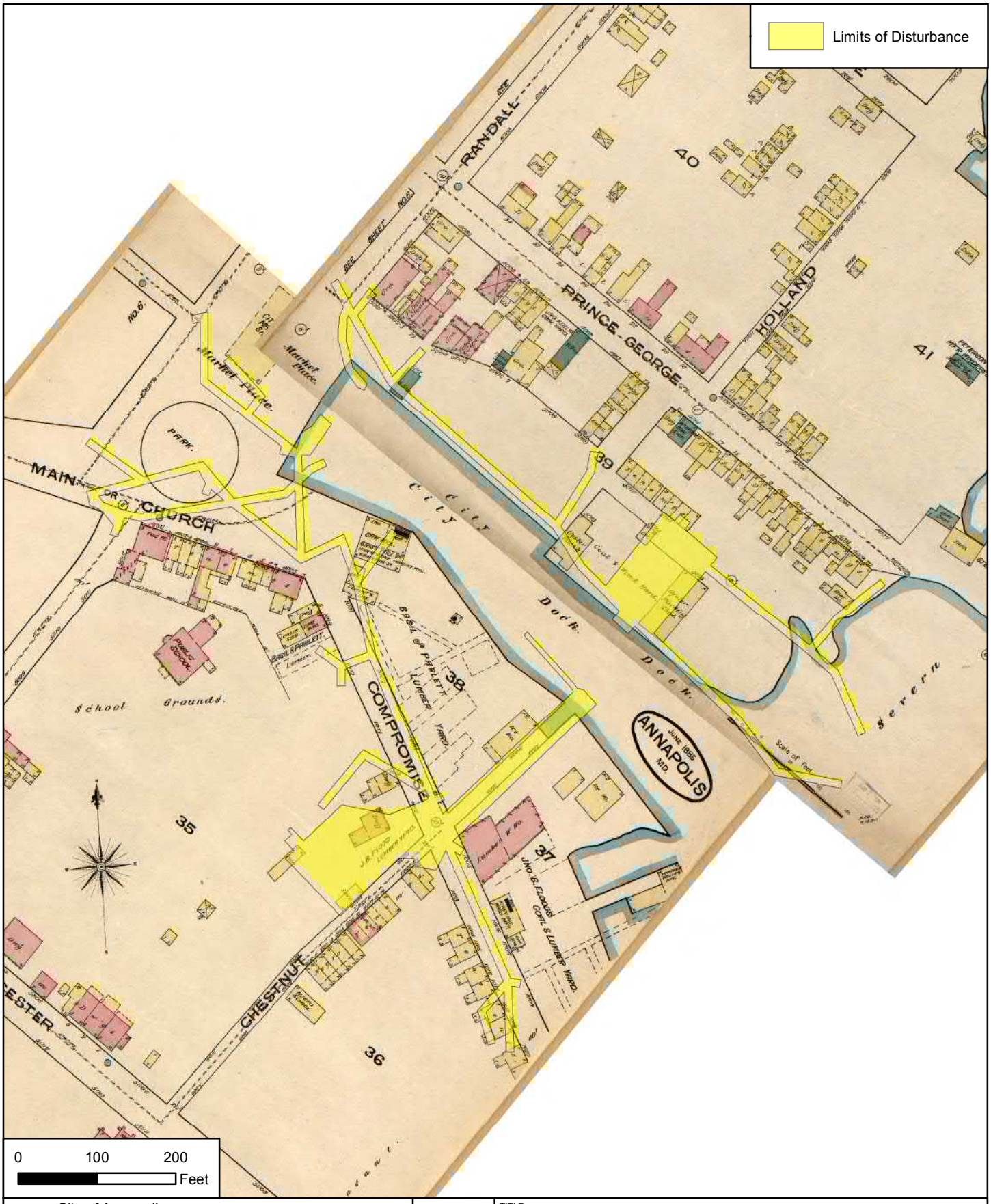
CLIENT	City of Annapolis
PROJ	City Dock Phase IA Archaeological Assessment
SCALE	1:2,000
SOURCE	Hopkins 1878
	Q:\Projects\WR\City of Annapolis\Storm Drain and Flood Mitigation Design Services\400-Technical\432_Cultural\GIS\Fig 10_1878 map.mxd

TITLE: 1878 Hopkins Map

AECOM
12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO 60533093

FIGURE 12



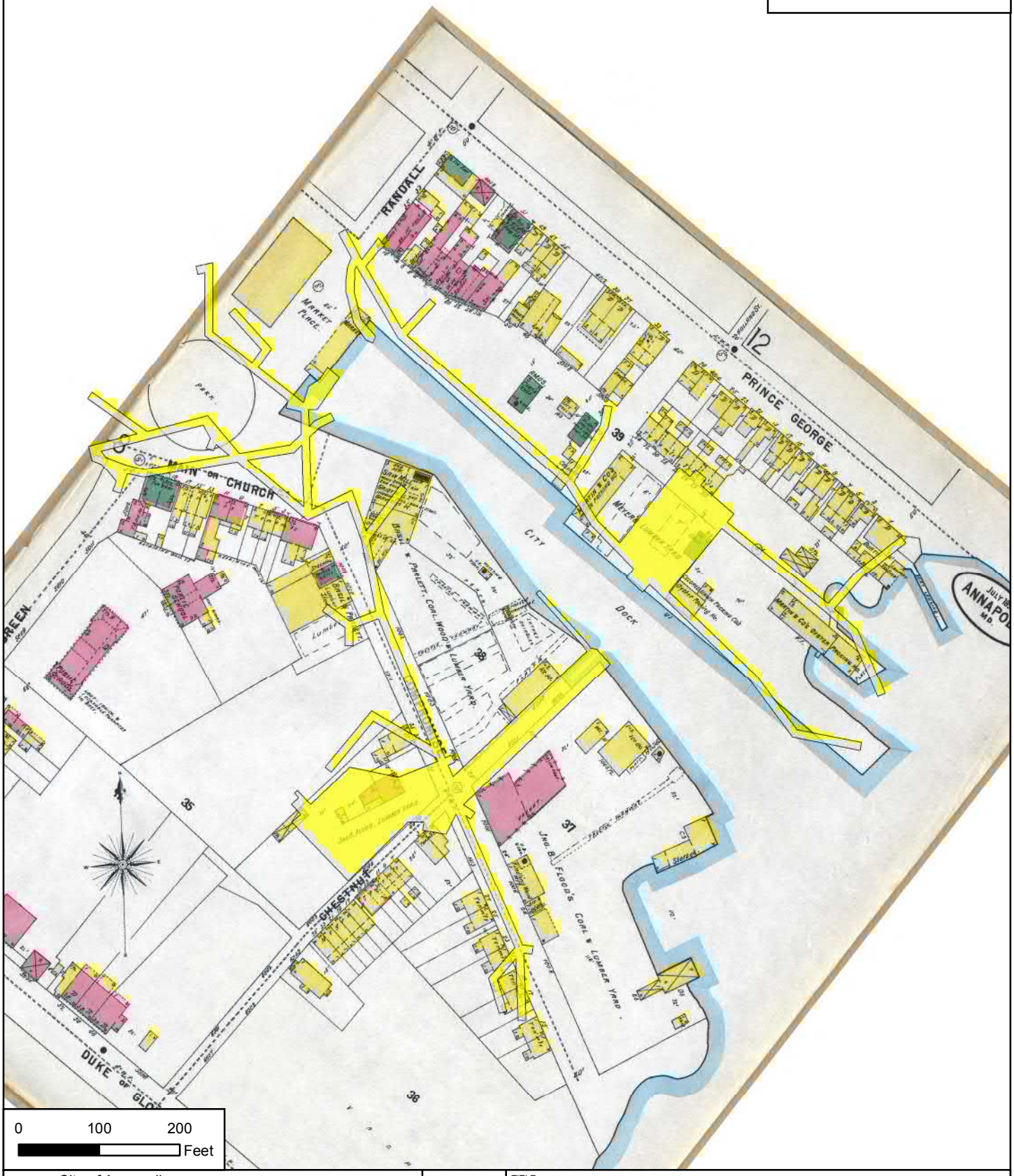
CLIENT	City of Annapolis
PROJ	City Dock Phase IA Archaeological Assessment
SCALE	1:2,000
SOURCE	Sanborn 1885
	Q:\Projects\WR\City of Annapolis\Storm Drain and Flood Mitigation Design Services\400-Technical\432_Cultural\GIS\Fig 11_1885 map.mxd

TITLE: 1885 Sanborn Map

AECOM
12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO 60533093

FIGURE 13

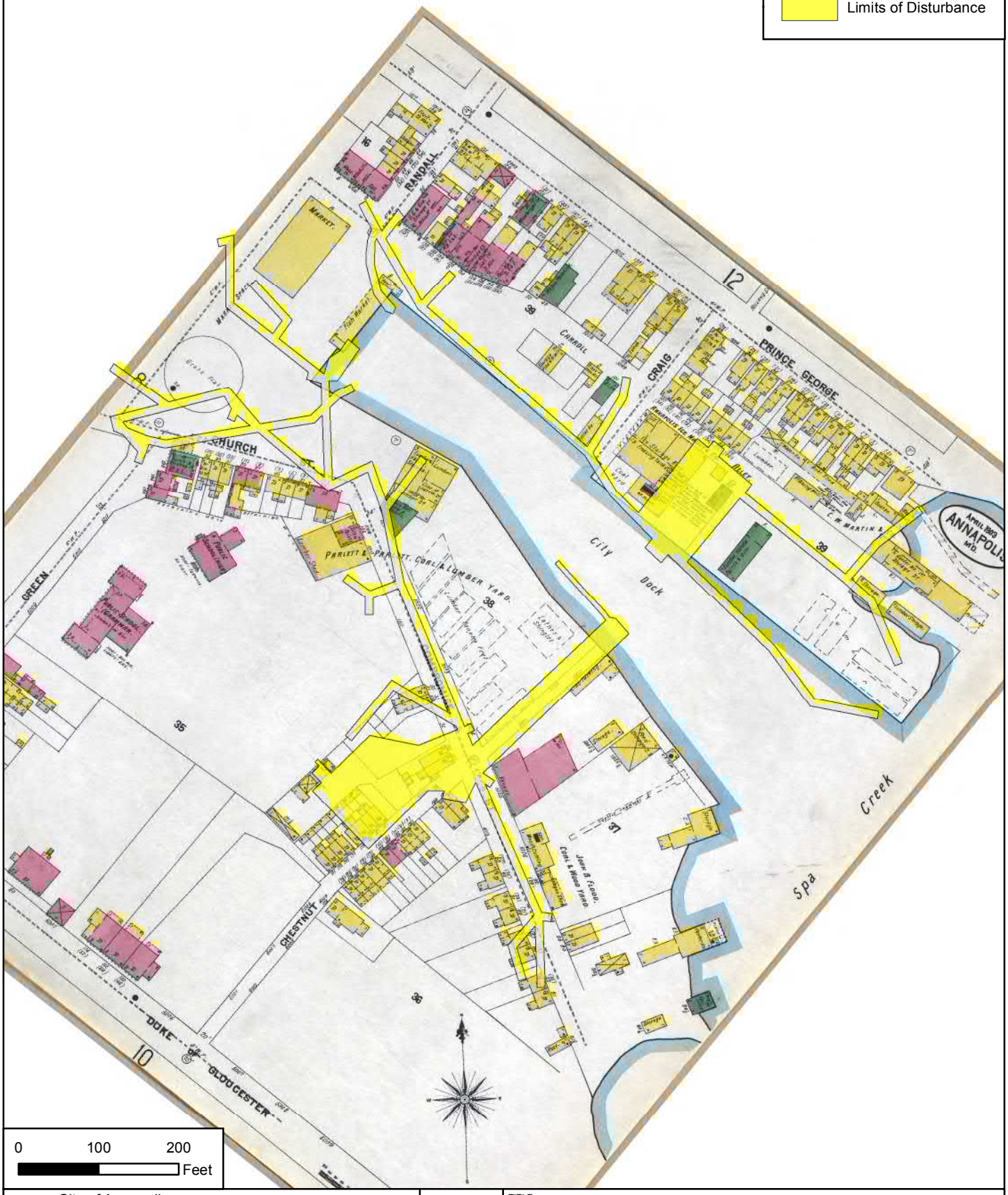


CLIENT	City of Annapolis
PROJ	City Dock Phase IA Archaeological Assessment
SCALE	1:2,000
SOURCE	Sanborn 1897
	Q:\Projects\WR\City of Annapolis\Storm Drain and Flood Mitigation Design Services\400-Technical\432_Cultural\GIS\Fig 12_1897 map.mxd

TITLE
1897 Sanborn Map

AECOM
12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO 60533093
FIGURE 14



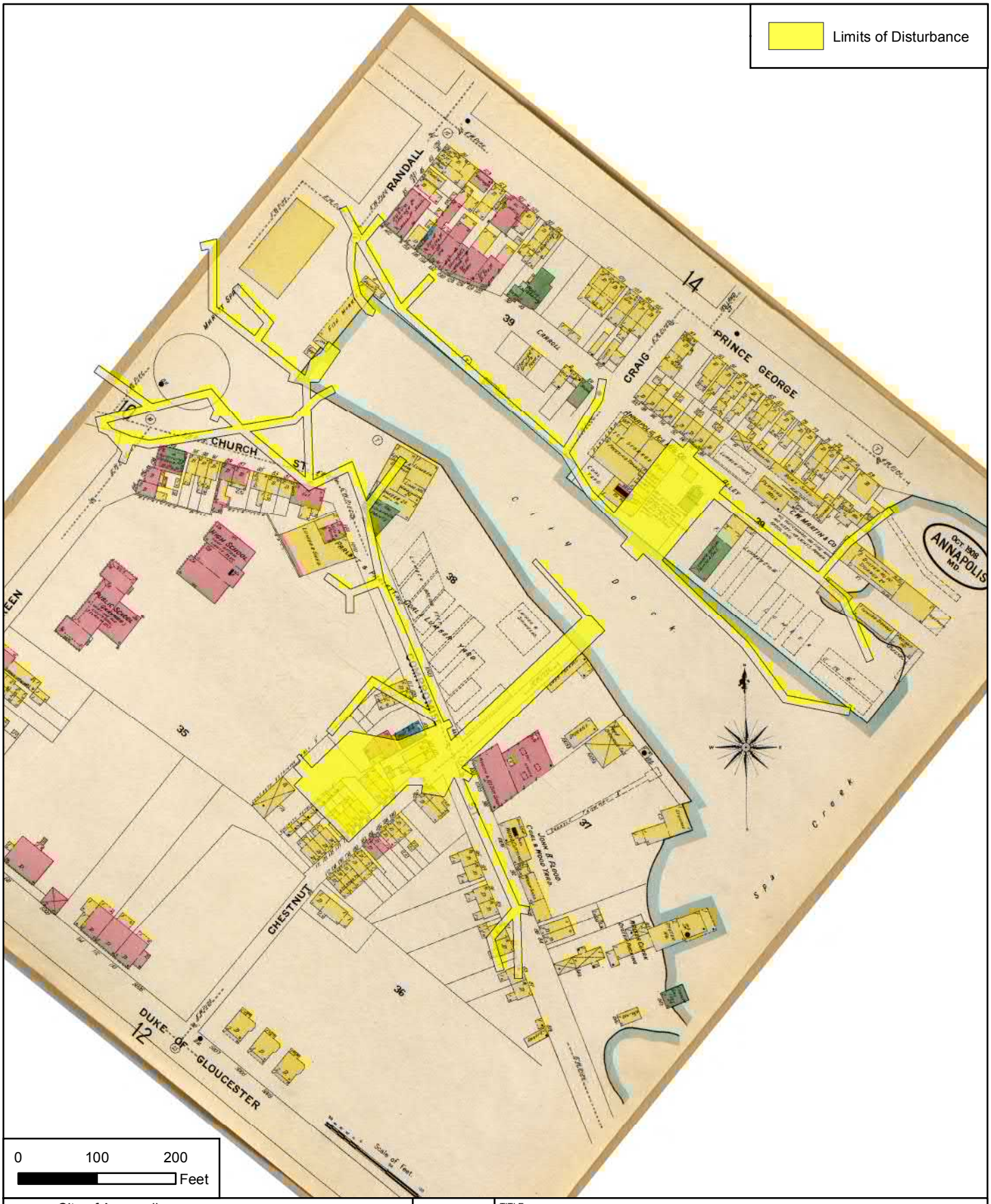
CLIENT	City of Annapolis
PROJ	City Dock Phase IA Archaeological Assessment
SCALE	1:2,000
SOURCE	Sanborn 1903
	Q:\Projects\WR\City of Annapolis\Storm Drain and Flood Mitigation Design Services\400-Technical\432_Cultural\GIS\Fig 13_1903 map.mxd

TITLE: 1903 Sanborn Map

AECOM
12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO 60533093

FIGURE 15

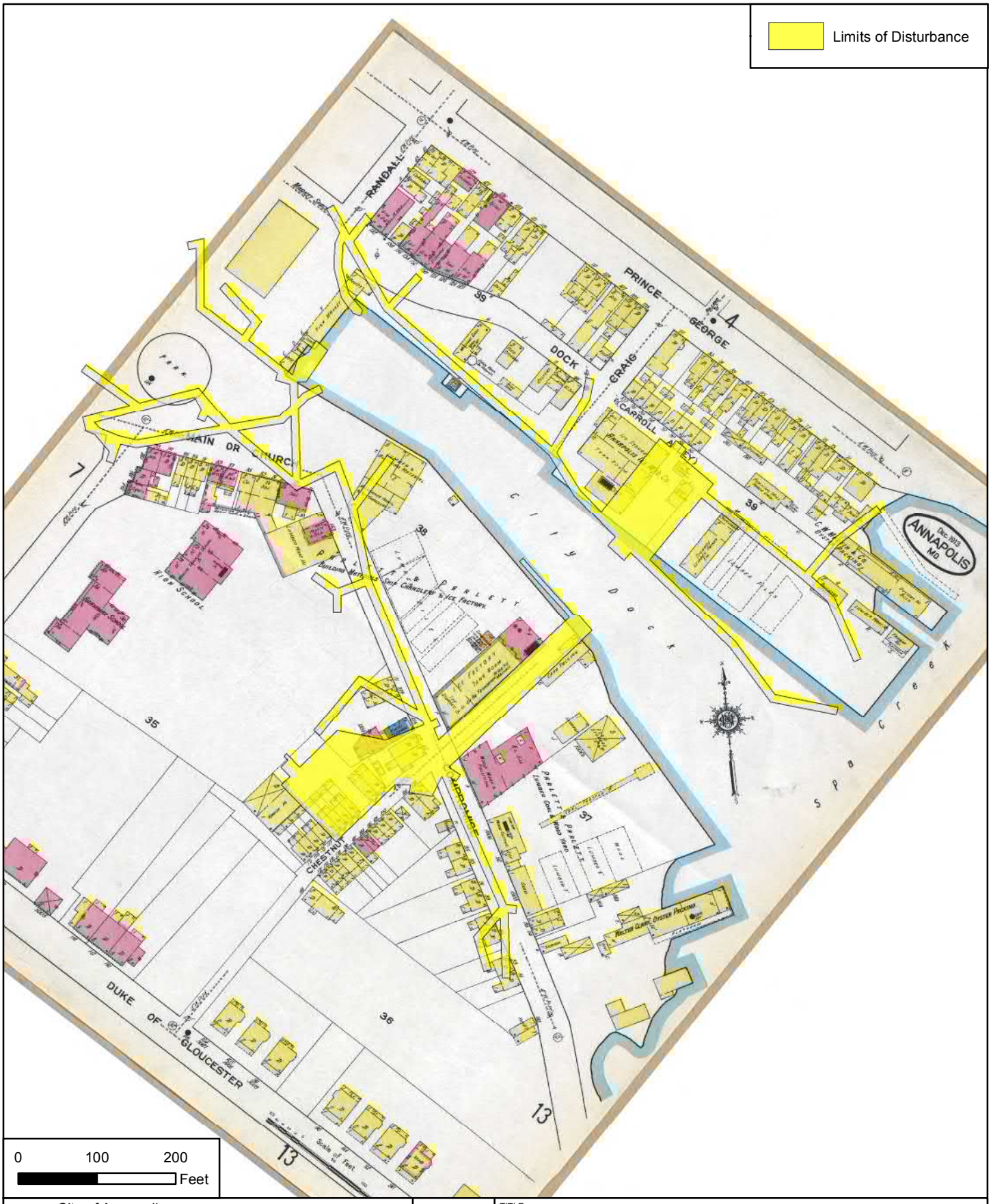


CLIENT	City of Annapolis
PROJ	City Dock Phase IA Archaeological Assessment
SCALE	1:2,000
SOURCE	Sanborn 1908
	Q:\Projects\WR\City of Annapolis\Storm Drain and Flood Mitigation Design Services\400-Technical\432_Cultural\GIS\Fig 14_1908 map.mxd

TITLE
1908 Sanborn Map

AECOM
12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO 60533093
FIGURE 16



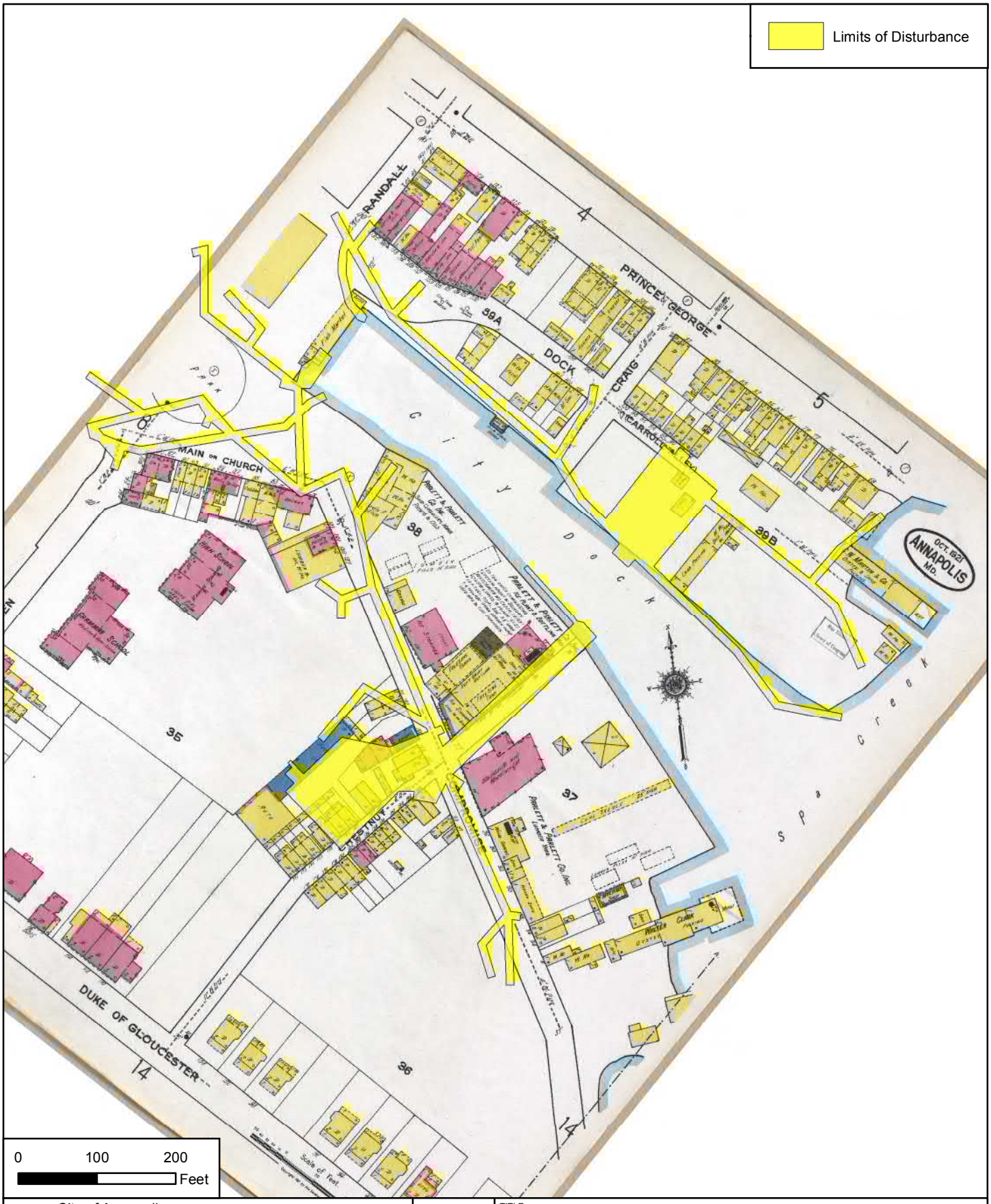
CLIENT	City of Annapolis
PROJ	City Dock Phase IA Archaeological Assessment
SCALE	1:2,000
SOURCE	Sanborn 1913
	Q:\Projects\WR\City of Annapolis\Storm Drain and Flood Mitigation Design Services\400-Technical\432_Cultural\GIS\Fig 15_1913 map.mxd

TITLE: 1913 Sanborn Map

AECOM
12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO 60533093

FIGURE 17



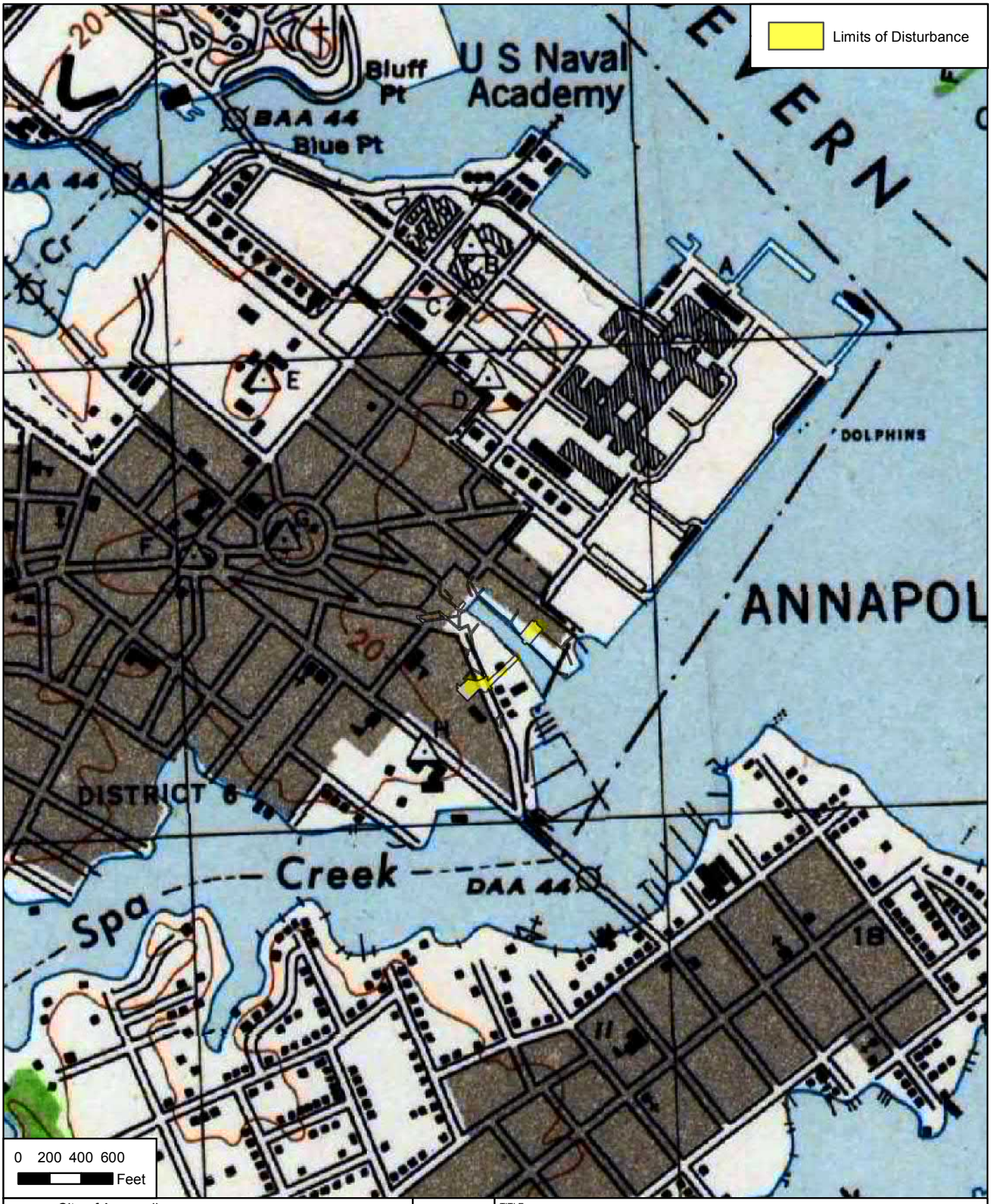
CLIENT	City of Annapolis
PROJ	City Dock Phase IA Archaeological Assessment
SCALE	1:2,000
SOURCE	Sanborn 1921
	Q:\Projects\WR\City of Annapolis\Storm Drain and Flood Mitigation Design Services\400-Technical\432_Cultural\GIS\Fig 16_1921 map.mxd

TITLE

1921 Sanborn Map

AECOM
12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO	60533093
FIGURE	18



CLIENT	City of Annapolis
PROJ	City Dock Phase IA Archaeological Assessment
SCALE	1:10,000
SOURCE	USGS 1944
	Q:\Projects\WR\City of Annapolis\Storm Drain and Flood Mitigation Design Services\400-Technical\432_Cultural\GIS\Fig 17_1944 map.mxd

TITLE

1944 USGS Topographic Map, Annapolis, MD Quadrangle

AECOM

12420 Milestone Center Dr.
Germantown, MD 20876

PROJ NO	60533093
FIGURE	19

7.0 REFERENCES CITED

Adovasio, James M., Jack Donahue, David R. Pedler, and Robert Stuckenrath
1998 Two Decades of Debate on Meadowcroft Rockshelter. *North American Archaeologist* 19:317-341.

Archaeology in Annapolis Consortium
1984 Newman Street Site, 18AP39 Maryland Archeological Site Survey Form and Phase II and Phase III Archeological Database Inventory Form. On file with the MHT.

Baker, Nancy
1986 Annapolis, Maryland 1695-1730. *Maryland Historical Magazine* 81:191-209.

Barse, William P., and J. Harbison
2000 *Phase II Archaeological Testing on the Prehistoric and Historic Components of Site 44AX185, Jones Point Park, Alexandria, Virginia.* Submitted to the Federal Highway Administration, Virginia Department of Transportation, and the National Park Service by the Potomac Crossing Consultants, Florence, New Jersey.

Barse, William P., J. Harbison, I. Wuebber, and M. Janowitz
2006 *Phase III Archaeological Mitigation of the Prehistoric and Historic Components of Site 44AX185, Jones Point Park, Alexandria, Virginia.* Submitted to the Federal Highway Administration, Virginia Department of Transportation, and the National Park Service by the Potomac Crossing Consultants, Burlington, New Jersey.

Binford, Lewis R.
1980 Willow Smoke and Dog's Tails: Hunter-Gatherer Settlement Systems and Archaeological Site Formation. *American Antiquity* 45:4-20.

Bradford, James C.
1977 *Anne Arundel County, Maryland: A Bicentennial History, 1649-1977*. Anne Arundel County and Annapolis Bicentennial Committee, Annapolis.

Brantz, Lewis, and Fielding Lucas, Jr.
1819 This Survey of the River Patapsco and Part of Chesapeake Bay. Electronic map retrieved from the Library of Congress, http://hdl.loc.gov/loc.gmd/g3842p.ct004173, accessed January 8, 2017.

Chapman, J.
1975 *The Rose Island Site and the Bifurcate Point Tradition*. Department of Anthropology Report of Investigations 14. University of Tennessee, Knoxville.

Cochran, Matthew David, Matthew M. Palus, Stephanie N. Duensing, John E. Blair, Jocelyn E. Knauf, Jessica Leigh Mundt
2008 Phase II Archaeological Testing on Fleet Street (18AP111), Cornhill Street (18AP112) and 26 Market Space (18AP109), Annapolis, Maryland. University of Maryland College Park.

Craven, Avery Odelle
1965 *Soil Exhaustion as a Factor in the Agricultural History of Virginia and Maryland, 1606-1860.* Peter Smith, Gloucester.

Crosby, Constance
1984 *A Preliminary Site Report for the Victualling Warehouse*. Historic Annapolis Foundation, on file at Maryland Historical Trust, Crownsville.

Custer, Jay F.
1990 Early and Middle Archaic Cultures of Virginia: Culture Change and Continuity. In *Early and Middle Archaic Research in Virginia*. Archaeological Society of Virginia, Special Publication No.22, edited by Theodore R. Reinhart and Mary Ellen N. Hodges, pp. 1-60. Dietz Press, Richmond, Virginia.

Dent, Richard J., Jr.
1995 *Chesapeake Prehistory: Old Traditions, New Directions*. Plenum Press, New York.

Detroit Publishing Company
1906 City and harbor, Annapolis, Md. Digital image retrieved from the Library of Congress, http://www.loc.gov/pictures/item/2016801160/, accessed January 25, 2018.

Egloff, Keith T., and Stephen R. Potter
1982 Indian Ceramics from Coastal Plain Virginia. *Archaeology of Eastern North America*, 10:95-112.

Esri
2018 ArcGIS Map Service, ArcMap 10.3. ESRI, Redlands, California.

Gaber, S.A. and K.L. Erlandson
1992 Phase II Archeological Survey at the Crystal Springs Site (18AN243), Annapolis Junction, Anne Arundel County, Maryland. Report prepared for The Baltimore Gas and Electric Company Engineering Division by John E. Harms, Jr. & Associates, Inc.

Gardner, William M.
1980 The Archaic. Paper presented at the 11th Middle Atlantic Archaeological Conference, Rehoboth Beach, Delaware.

Griffith, Dennis
1794 Map of the State of Maryland Laid Down from an Actual Survey of all the Principal Waters, Public Roads, and Divisions of the Counties Therein. Electronic map retrieved from the Library of Congress, http://hdl.loc.gov/loc.gmd/g3840.ct000307, accessed January 16, 2018.

Hodges, Mary Ellen N.
1993 The Archaeology of Native American Life in Virginia in the Context of European Contact: Review of Past Research. In *The Archaeology of 17th-Century Virginia.* Special Publication No. 30 of the Archeological Society of Virginia, edited by Theodore R. Reinhart, and Dennis J. Pogue pp. 1-66. Dietz Press, Richmond, Virginia.

Hopkins, Griffith Morgan, Jr.
1878 Atlas of Fifteen Miles around Baltimore, Including Anne Arundel County, Maryland. Electronic map retrieved from the Library of Congress, http://hdl.loc.gov/loc.gmd/g3843am.gct00071, accessed January 8, 2017.

Kerns, Mechelle
2016 Archaeological Monitoring for the Annapolis City Dock Bulkhead Repair Project March 1-25, 2016. Report prepared for the City of Annapolis by Kerns CRM Consultants, Severna Park, Maryland.

Klein, Michael J., and Thomas Klatka
1991 Late Archaic and Early Woodland Demography and Settlement Patterns. In *Late Archaic and Early Woodland Research in Virginia: A Synthesis* Special Publication No. 23 of the Archeological Society of Virginia, edited by Theodore R. Reinhart, and Mary Ellen Hodges, pp. 139-184. Dietz Press, Richmond, Virginia.

Kulikoff, Allan
1986 *Tobacco and Slaves: The Development of Southern Cultures in the Chesapeake, 1680-1800*. University of North Carolina Press, Chapel Hill.

Land, Aubrey C.
1981 *Colonial Maryland: A History*. KTP Press, New York.

Luckenbach, Al
1995 *Jessup/Maryland City Small Area Plan Background*. http://www.aacounty.org/PlanZone/SAP/Resources/sap_jessup_hist.pdf. Electronic document accessed December, 2003.

Manakee, H.R.
1961 *Maryland in the Civil War*. Maryland Historical Society, Baltimore.

McAvoy, Joseph M., and Lynn D. McAvoy
1997 *Archaeological Investigations of Site 44SX202, Cactus Hill, Sussex County, Virginia*. Research Report Series No. 8. Virginia Department of Historic Resources, Richmond.

Martenet, Simon J.
1860 Martenet's map of Anne Arundel County, Maryland. Electronic map retrieved from the Library of Congress, http://hdl.loc.gov/loc.gmd/g3843a.la000281, accessed January 8, 2017.

Maryland Department of Natural Resources (MD DNR)
2018a MERLIN-Maryland's Environmental Resource and Land Information Network. Online mapping tool. Electronic document, http://www.mdmerlin.net/, accessed January 18, 2018.

2018b Severn River Restoration Project. Electronic document, http://dnr.maryland.gov/fisheries/Pages/oysters/severn-river.aspx, accessed January 8, 2018.

Maryland Geological Survey (MGS)
2018 Maryland Geology. Electronic document, http://www.mgs.md.gov/geology/, accessed January 8, 2018.

Maryland Historical Trust (MHT)
2017 Maryland Inventory of Historic Properties, Archaeological Site Survey. Electronic document, https://mht.maryland.gov/documents/PDF/archeology/Archeology_forms_MASS_Instructions.pdf, accessed January 16, 2018.

Maryland State Archives (MSA)
1949 Circuit Court for Anne Arundel County. Equity Case #9658. Mayor & Aldermen of Annapolis, vs. The Southern Oil Company.

McWilliams, Jane Wilson
2011 *Annapolis City on the Severn: A History*. The John Hopkins University Press, Baltimore, Maryland.

McWilliams, Jane and Edward Papenfuse
1994 Supplement to Annapolis Lot Histories and Maps. Appendix F: Lot Histories and Maps, and associated research files. Maryland State Archives, Annapolis, Maryland.

Pearl, S., M. King, and H.S. Berger
1991 *Historic Contexts in Prince George's County: Short Papers on Settlement Patterns, Transportation and Cultural History*. Prince George's County Planning Department, Historic Preservation Section.

Polglase, Christopher R., April L. Fehr, Suzanne L. Sanders, Martha Williams, David Landon, Andrew D. Madsen, Kathleen Child, Michele Williams
1997 Cultural Resources Management Investigations for the Main Street Reconstruction Project, Annapolis, Maryland. Report prepared for the City of Annapolis by R. Christopher Goodwin Associates.

Potter, Stephen R.
1993 *Commoners, Tribute and Chiefs: The Development of the Algonquin Culture in the Potomac Valley*. University Press of Virginia, Charlottesville, Virginia.

Ridgely, Henry
1690? Survey of Annapolis. Electronic map retrieved from the Library of Congress, http://hdl.loc.gov/loc.gmd/g3844a.ct002307, accessed January 8, 2018.

Sanborn Map Company
1885 Sanborn Fire Insurance Map from Annapolis, Anne Arundel County, Maryland. Electronic map retrieved from the Library of Congress, http://hdl.loc.gov/loc.gmd/g3844am.g03572001, accessed January 8, 2018.

1897 Sanborn Fire Insurance Map from Annapolis, Anne Arundel County, Maryland. Electronic map retrieved from the Library of Congress, http://hdl.loc.gov/loc.gmd/g3844am.g03572003, accessed January 8, 2018.

1903 Sanborn Fire Insurance Map from Annapolis, Anne Arundel County, Maryland. Electronic map retrieved from the Library of Congress, http://hdl.loc.gov/loc.gmd/g3844am.g03572004, accessed January 8, 2018.

1908 Sanborn Fire Insurance Map from Annapolis, Anne Arundel County, Maryland. Electronic map retrieved from the Library of Congress, http://hdl.loc.gov/loc.gmd/g3844am.g03572005, accessed January 8, 2018.

1913 Sanborn Fire Insurance Map from Annapolis, Anne Arundel County, Maryland. Electronic map retrieved from the Library of Congress, http://hdl.loc.gov/loc.gmd/g3844am.g03572006, accessed January 8, 2018.

1921 Sanborn Fire Insurance Map from Annapolis, Anne Arundel County, Maryland. Electronic map retrieved from the Library of Congress, http://hdl.loc.gov/loc.gmd/g3844am.g03572007, accessed January 8, 2018.

Sperling, Stephanie T.
2008 The Middle Woodland Period in Central Maryland: A Fresh Look at Old Questions. *Maryland Archaeology* 44(1):22–36.

Tourville, Steven F., Shawn Sharpe, and John E. Kille
2010 *Phase I Archaeological Investigations, Annapolis Elementary School*. Lost Towns Project, Annapolis, Maryland.

United States Coast Survey
1846 The Harbor of Annapolis. Electronic map retrieved from the Library of Congress, http://hdl.loc.gov/loc.gmd/g3844a.ct002197, accessed January 8, 2018.

US Geological Survey (USGS)
1944 USGS 7.5-minute Topographic Quadrangle, Annapolis, MD. Electronic document, https://ngmdb.usgs.gov/topoview/, accessed January 8, 2018.

United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS)
2018 Web Soil Survey. Electronic resource, http://websoilsurvey.nrcs.usda.gov/app/, accessed January 8, 2018.

Wesler, Kit W., Dennis J. Pogue, Aileen F. Button, Gordon J. Fine, Patricia A. Sternheimer, and E. Glyn Furgurson
1981 *The M/DOT Archaeological Resources Survey: Volume 3: Piedmont*. Maryland Historical Trust Manuscript Series, No. 7. Maryland Historical Trust, Crownsville, Maryland.

Appendix A:
Qualifications of Investigators

This Page Intentionally Blank

Scott Seibel, MSc, is a Registered Professional Archaeologist with over 20 years of experience in archaeological excavations, research, and compliance studies who exceeds the *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61). Mr. Seibel has extensive cultural resource management experience, having served as Principal Investigator or Field Director for tens of thousands of acres of Phase I archaeological survey, dozens of Phase II evaluations, and 12 Phase III data recovery excavations within the Mid-Atlantic, Southeast, and Texas. He received his BA in Archaeological Studies at the University of Texas at Austin in 1996 and his MSc in Archaeomaterials at the University of Sheffield in England in 1997.

Kathleen Furgerson, MA, is a Registered Professional Archaeologist with over 31 years of experience in archaeological excavations, research, and compliance studies who exceeds the *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61). Ms. Furgerson has archaeological experience in the Mid-Atlantic, Northeast, and Southeast regions of the United States, and in the southern Maritimes of Canada. Ms. Furgerson has experience in the management and field direction of all phases of archaeological investigations. In addition, she has experience in report writing, research design development, technical and cost proposal development, laboratory analysis, project management, and public outreach and education programs. Ms. Furgerson received her BA in Anthropology from the University of Connecticut in 1986 and her MA in Archaeology and Heritage from the University of Leicester in 2007.

Heather Crowl, MA, is a Registered Professional Archaeologist with over 20 years of experience in archaeological excavations, research, and compliance studies who exceeds the *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61). Ms. Crowl has experience in prehistoric and historic archaeology, particularly in the Mid-Atlantic and East Coast regions of the United States. A majority of this experience is in cultural resources management for private, state, and federal compliance projects. Ms. Crowl has extensive experience in the design, management, and technical execution of historical and archaeological investigations. As a principal archaeologist, Ms. Crowl oversees project management, directs archaeological field survey, evaluation, and excavation, and conducts cemetery delineations, artifact analysis, report writing, graphic preparation, and archival research. Ms. Crowl received her BA in Anthropology from the College of William and Mary in 1994 and her MA in Anthropology from American University in 2002.

This Page Intentionally Blank